RAILROAD

RAILROAD

DECEMBER

MAGAZINE

50 CENTS

PENNSY POWER PARADE

By Walter A. Lucas

Build a Spare-Time Business That Brings in

BIG MONEY Every Month!

Add $217 to Your Income Next Month!

We Furnish Everything FREE!

How'd you like a steady spare-time business bringing you cash profits every month . . . as much as $217 EXTRA income on just 2 easy sales a day? I want to put this exciting business right in your hands, as I have done for thousands of others . . . and you don't have to spend one cent! **I also want to send you valuable Bonus Prizes for doing a good job!**

Here's why this is the perfect spare-time business for you:

- No investment . . . now or ever.
- No overhead . . you make 100% profit on every order you take!
- You sell Nationally-advertised products not handled by stores . . . they will be available **only** from **you!**
- You feature fast-selling Mason shoes and jackets . . . apparel that EVERYBODY needs.
- You make a generous profit on each sale and have a chance to earn **extra** Bonus Checks each month . . . plus expensive prizes!

Start as soon as you receive my powerful Free Sales Kit. Many men with no previous experience have made $20 the very first day with this Outfit, introducing our quality products to friends, relatives, fellow workers. You'll be amazed how quickly they buy from you! Here's why:

1. You show a selection of **174 different styles** in dress, sport, work shoes for men and women . . . plus a complete line of jackets!
2. You can fit almost **everybody**, because you feature an amazing range of sizes (2½ - 15) and widths (AAAA - EEEE)!
3. **You draw on our huge stock of 200,000 pairs.** That means you're never "out" of a style, size or width. You beat store competition all hollow!
4. **You feature our exclusive Velvet-eez foamy-soft AIR CUSHION INNERSOLES** . . . a blessing for people who work on their feet . . . like "walking on air"! (Velvet-eez shoes bear the famous Good Housekeeping Seal.)
5. You feature such exciting styles as the fast-selling **shoe & jacket combinations** pictured above. You'll make double profits on each combination you sell!

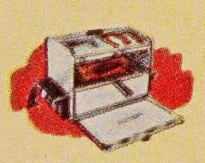
To start this exciting business **right away,** mail the coupon **now.** I will rush your powerful FREE Sales Kit that contains **everything** you need to start making money the very first hour! I'll also show how you can win exciting Bonus Prizes. Start making as much as $217 **extra** a month . . . rush your coupon TODAY!

$20,000 EXTRA in Bonus Prizes!

To celebrate our Golden Anniversary we are giving costly gifts to Mason men who do a good selling job. There is a prize for practically EVERYBODY! Full details on how much YOU can win will be sent with your Free Sales Kit.

HAPPINESS TOUR FOR 2 THROUGH FLORIDA!

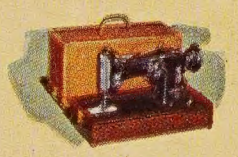
6 TAPPAN HOLIDAY RANGES!



24 ROTISS-O-MAT ELECTRIC ROTISSERIES!

12 COCKER PUPPIES, CASE OF IDEAL DOG FOOD!

6 COLUMBIA TRU-FIT $200 DIAMOND RING SETS!



PFAFF DIAL-A-STITCH SEWING MACHINE!

Richard Automatic Gold Watches! ★ Set of **Encyclopedia Britannica!** ★ 11 Piece **Flavor Seal** Cookwear Set! ★ **London Staplers** Made-To-Measure Suit! ★ **Kingston** Vacuum Cleaner Set! ★ **Shopmaster** Power Tool Set! ★ 100 **Eveready** 3-piece Flashlight Sets! ★ 360 **Universal** Pen, Pencil Sets with INK-N-TROL Ball Pen! ★ 100 **Inner Sanctum** Billfold Sets! ★ 100 6-month supplies **B.V.D.'s!**

These are just a few of the exciting prizes! Rush your coupon NOW!

MASON SHOE MFG. CO. Dept. MA-479
Chippewa Falls, Wisconsin

RUSH FOR FREE SALES KIT!

Mr. Ned Mason, Dept. MA-479
Mason Shoe Mfg. Co., Chippewa Falls, Wisconsin

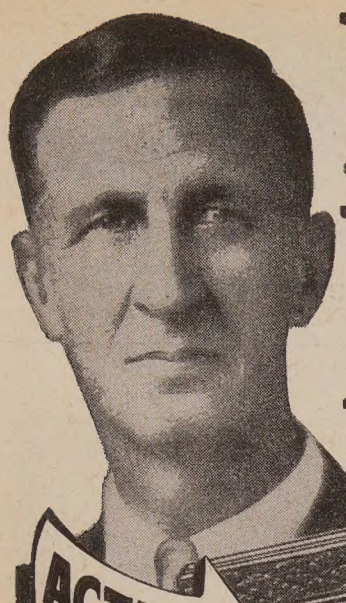
You bet I want a business that brings in exciting cash profits every month! Rush my money-making FREE Sales Outfit, so I can start earning $217 EXTRA income in spare time. Also rush details on how I can win valuable Bonus Prizes!

Name_____

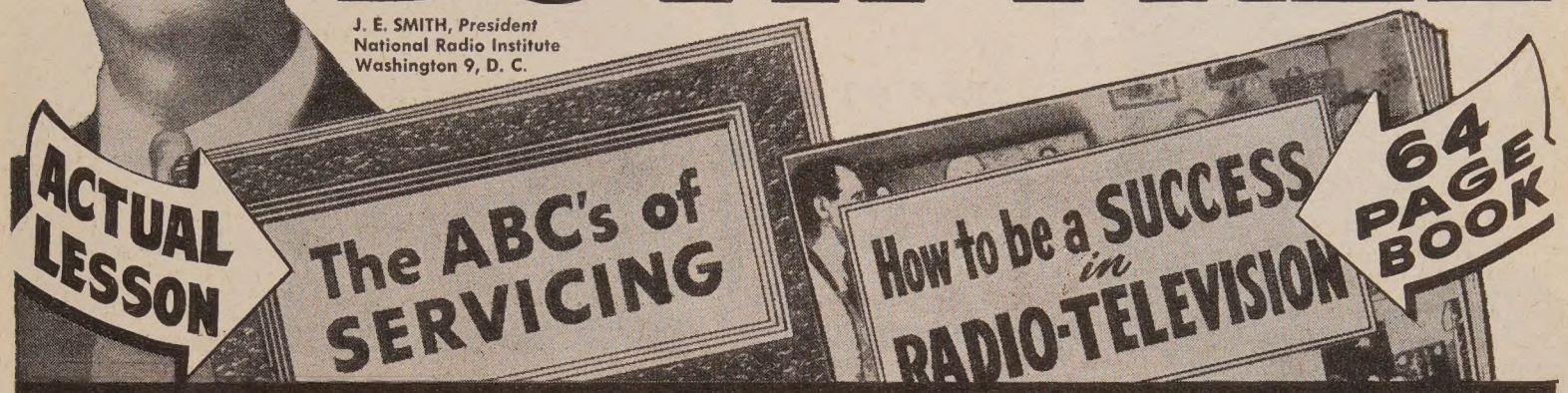
Address_____

Town_____ State_____

I Will Send You BOTH FREE



J. E. SMITH, *President*
National Radio Institute
Washington 9, D. C.



See How I Train You at Home in Spare Time for Good Pay Jobs in RADIO-TELEVISION

You Practice Broadcasting *with Equipment I Send*

As part of my Communications Course I send you kits of parts to build the low-power Broadcasting Transmitter shown at left. You use it to get practical experience putting this station "on the air," to perform procedures required of broadcasting station operators. An FCC Commercial Operator's license can be your ticket to a better job and a bright future. My course gives you the training you need to get your license. Mail coupon below. See in my book other valuable equipment you build and keep.

You Practice Servicing *with Equipment I Send*

Nothing takes the place of PRACTICAL EXPERIENCE. That's why NRI training is based on LEARNING BY DOING. You use kits of parts I furnish to build many circuits common to both Radio and Television. With my Servicing Course you build the modern receiver shown at right. You also build an Electronic Multitester which you can use to help fix sets while training at home. Many students make $10, $15 a week extra fixing neighbors' sets in spare time, starting soon after enrolling. I send you special booklets that show you how to fix sets. Mail coupon for 64-page book and actual Servicing Lesson, both FREE.

TRAINING plus OPPORTUNITY is the PERFECT combination. The sample lesson I send will prove to you that it is practical to keep your job while TRAINING right in your own home for better pay and a brighter future. My 64-page book should convince you that Radio-Television is truly today's field of OPPORTUNITY.

TELEVISION MAKING JOBS, PROSPERITY

Radio, even without Television, is bigger than ever. 115 million home and auto Radios create steady demand for service. 3000 Radio stations give interesting, good pay jobs to operators, technicians. NOW ADD TELEVISION. 25 million Television homes and the total growing rapidly. 200 Television stations on the air and hundreds more under construction. Color Television soon to be a reality. Government, Aviation, Police, Ship, Micro-wave Relay, Two-way Communications for buses, taxis, trucks, railroads are growing fields providing good jobs for men who know Radio-Television. All this adds up to good pay now, a bright future later for men who qualify.

START SOON TO MAKE $10, $15 A WEEK EXTRA

An important benefit of Radio-Television training is that you can start to cash in fast. Many men I train fix neighbors' sets, make extra money, starting soon after they enroll. Multitester built with parts I send helps locate and correct set troubles. Read at left how you build actual equipment that gives you practical experience, brings to life what you learn from my lessons.

MEN OF ACTION NEEDED MAIL COUPON TODAY

Act now to enjoy more good things of life. Get the benefit of my 40 years' experience training men at home. Take NRI training for as little as $5 a month. Many NRI graduates (some with only a grammar school education) make more in two weeks than the total cost of training. Find out about this tested way to better pay. Mail coupon below today for Actual Lesson and 64-page Book—BOTH FREE. J. E. SMITH, President, National Radio Institute, Dept 4NR4, Washington 9, D. C. OUR 40TH YEAR.

I TRAINED THESE MEN AT HOME

"Started repairing Radios six months after enrolling. Earned $12 to $15 a week, spare time."—ADAM KRAMLIK, JR., Sumneytown, Pennsylvania.

"I've come a long way in Radio and Television since graduating. Have my own business on Main Street."—JOE TRAVERS, Asbury Park, New Jersey.

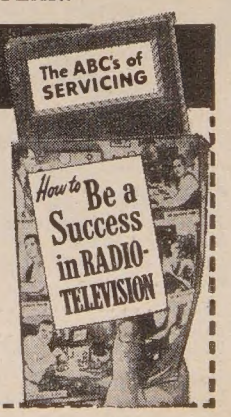
"Answered ad for Radio and Phone Serviceman. Got the job. Within a year my pay increased 50%".—CHURCHILL CARTER, San Bernardino, California.

"Am with WCOC. NRI course can't be beat. Passed exam for first class Radiophone license with no trouble at all."—JESSE W. PARKER, Meridian, Miss.

"Am with WNBT as video control engineer on RCA color project. Owe a lot of my success to your textbooks."—WARREN DEEM, Malverne, N. Y.

AVAILABLE TO VETERANS UNDER GI BILLS

Good for Both-FREE



Mr. J. E. SMITH, President, Dept 4NR4
National Radio Institute, Washington 9, D. C.

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Address.....

City..... Zone..... State.....

VETS write in date of discharge.....

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You'll get a thrill . . . the same comfort thrill paratroopers get . . . when they first wear a pair of Genuine Corcoran Paratroop Boots, only boots made to original specifications.

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Please rush a pair of genuine Paratroop Boots. In tan ( ) black ( ) or with heavy oil finish ( ) Check ☐ Money Order ☐ for $12.87 is enclosed.
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Address.....
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Boot size and width.....
(Specify size and width of your former GI Army shoe or your most comfortable dress shoe.)
AD-10

RAILROAD MAGAZINE

The Magazine of Adventurous Railroading

VOL. 65, NO. 4 DECEMBER, 1954

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Occupation_____

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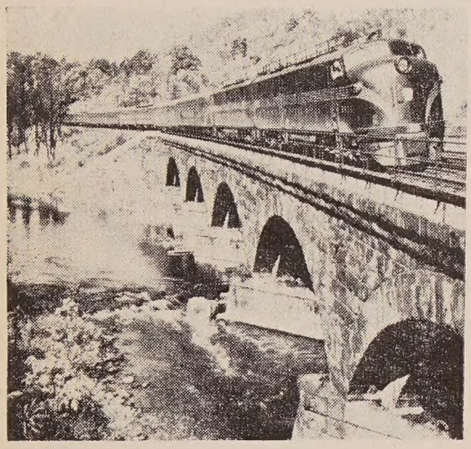
MAIL CAR | *Running Orders, Waybills, and Sandhouse Gossip —from Railroaders, Fans, and the Editorial Crew*



Our front cover, painted by Herb Mott, is a modified version of this photo of a PRR train, the westbound *St. Louisan*, crossing the Little Juniata River in central Pennsylvania.

CONGRATULATIONS to the Long Island for finally pulling out of a siege of bankruptcy that lasted five and a half years! Under the terms agreed upon, the Pennsy is refinancing its stepchild, the world's largest commuter road, and LIRR passenger fares have gone up 20 percent. At present, the Long Island has no air-conditioned equipment but recently ordered 127 such cars for service early next summer. Altogether, the rehabilitation program calls for spending more than $60,000,000 on new rolling stock and other improvements.

The LIRR is the only North American railroad, aside from city subways, that gets more revenue from its passengers than it does from its freight. Its closest rival in this respect is the New Haven, which, however, derives the bulk of its income from freight. •

STEAM FANS, facing the inevitable, are beginning to show interest in diesel power. For example, Philip G. Johnson, 327 Forest Drive, Coeur d'Alene, Idaho.

"Like many other railfans," he writes, "I realize that the diesel-electric locomotive has sneaked into the picture while I was devoting my attention to the vanishing steamer. Now here I am, surrounded by a lot of diesel machines I can't identify. My reputation as an amateur authority on railroad subjects is fading as I watch the parade of diesel-electrics on the old familiar roads. What to do? Maybe you'd better publish an article, with pictures, describing and comparing the various types of diesel-electric locomotives now in operation, so I can identify them. We fans need *Railroad* to keep us informed of what's going on." •

"I AM looking forward to your Pennsylvania roster," comments Thomas T. Taber III, 43 Hillcrest Road, Madison, N. J. "The Penn is the only important road still using steam power in this area. Recently I went to their Northumberland, Pa., roundhouse, where they keep five museum engines, canvas-covered except when on exhibition. These are Nos. 1223 (D16), 7002 (E3), 9684 (narrow gage), and 1187 (Class R, built in 1888), and the *John Bull*, the first locomotive to have a pilot." •

Roadmaster's daughter, Shirley Thompson, likes to ride in Dad's rail-motorcar.

ALTHOUGH the Santa Fe went all-diesel last March, they recently called back into service at least seven steam engines, 4-8-4s in the 2900 and 3776 series, for Amarillo-Slaton runs, due to the wheat rush and other freight traffic, reports W. O. Gibson, 1501-A One St., Amarillo, Texas. •

25 YEARS AGO this December, *Railroad* rolled back onto the main stem after rusting on a siding for more than ten years, and has made regular monthly runs ever since.

Frank A. Munsey started the magazine in October, 1906, and published it without let-up until January, 1919. Then it merged with *Argosy*. In 1929 it was "un-merged" by the initiative of a former locomotive fireman and telegraph operator, William E. Hayes. Bill served as editor for a short time, wrote railroad stories for *The Saturday Evening Post*, and is now with the Rock Island as Assistant to the President, in charge of public relations. Thus the current issue of *Railroad* marks our silver anniversary of continuous publication. We dedicate it to Bill Hayes. •

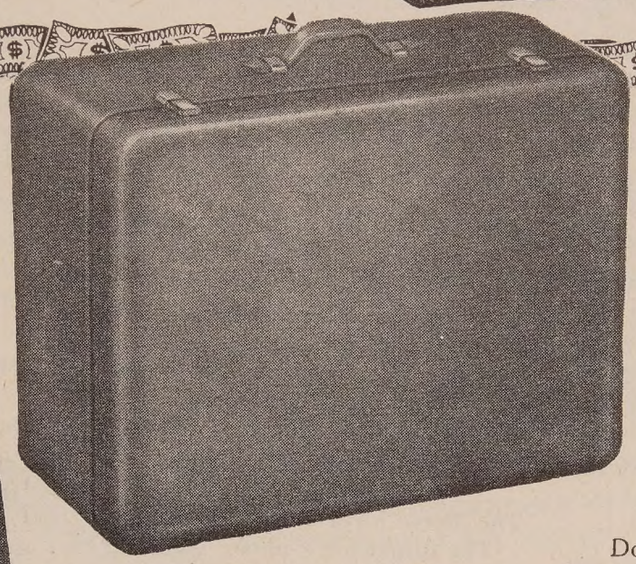
ROADMASTER'S daughter, Miss Shirley Thompson, Midland City, Ala., says she has "a definite yen" for a railroad job, preferably in the accounting department of the Atlanta & Saint Andrews Bay, known as the Bay Line.

"My father, B. E. Thompson, has been railroading on this line since he started as a section hand in 1917," she writes. "After winning several promotions, he is now a roadmaster, responsible for 85 miles of track, partly in Alabama but mostly in northwestern Florida, where snakes infest the right-of-way. I have known him to get up in the middle of night and rush off to the scene of a washout or some other emergency.

"One day in 1925, when he was a section foreman, a passing train hit a tire that lay near the track, ripping off a car step, and crushing my father's arm and hand. That was the only time he ever got hurt on the job. I am proud of my father and his job. You should see me riding on his rail-motorcar, *put-put-put* along the track, with the wind in my face and the scenery flying by. I've done it lots of times." •

OVERSEAS. "I find your fact articles very interesting," comments Walter G. Hunt, 2 Falcon St., Narrogin, West Australia, "especially those that deal with the early days. Would like to hear from some reader who can tell me how North American

Men! Send for This Money-Making Outfit *FREE!*



See How Easy It Is to Make UP TO $30.00 IN A DAY!

Do you want to make more money in full or spare time . . . as much as $30.00 in a day? Then mail the coupon below for this BIG OUTFIT, sent you FREE, containing more than 100 fine quality fabrics, sensational values in made-to-measure suits, topcoats, and overcoats. Take orders from friends, neighbors, fellow-workers. Every man prefers better-fitting, better-looking made-to-measure clothes, and when you show the many beautiful, high quality fabrics—mention the low prices for made-to-measure fit and style—and show our guarantee of satisfaction, you take orders right and left. You collect a big cash profit in advance on every order, and build up fine permanent income for yourself in spare or full time.

No Experience Needed

It's amazingly easy to take measures, and you don't need any experience to take orders. Everything is simply explained for you to cash in on this wonderful opportunity. Just mail this coupon now and we'll send you this big, valuable outfit filled with more than 100 fine fabrics and everything else you need to start. You'll say this is the greatest way to make money you ever saw. Rush the coupon today!

J. C. FIELD & SON, Dept. T-1784

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Our plan makes it easy for you to get your own personal suits, topcoats, and overcoats without paying 1c—*in addition* to your big cash earnings. Think of it! Not only do we start you on the road to making big money but we also make it easy for you to get your own clothes without paying one penny. No wonder thousands of men write enthusiastic letters of thanks.

Just Mail Coupon

You don't invest a penny of your money now or any time. You don't pay money for samples, for outfits, or for your own suit under our remarkable plan. So do as other men have done—mail the coupon now. Don't send a penny. Just send us the coupon.

J. C. FIELD & SON, Dept. T-1784

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Name..... Age.....

Address.....

City..... State.....

railroads handle train orders. In return, I will supply information about the West Australian Railways, for which I work as a freight checker." •

YOUNGEST brakeman ever regularly employed as such—that's the claim made by C. J. Keenan, 6354 N. E. Cleveland Ave., Portland 11, Ore. He was only 13 years old on October 13, 1905, when he hired out in train service on the old Coal & Coke Railway, which in about 1907 became the Baltimore & Ohio's Charleston Division. He writes:

"While working as a train-boy between Charleston and Elkins, W. Va., I became acquainted with Senator Stephen B. Elkins. The Senator was also president of the C&C, and he got me a brakeman's job on that road. At the age of 15 I became a locomotive fireman, which also set a record; and at 17 I moved over to the right-hand side, making me, I believe, the youngest locomtive engineer in history.

"My home terminal was Gassaway, W. Va. I don't remember making any student trips. Within a few hours after they placed my name on the extra board I was called for the Charleston local freight. It was quite an ordeal for a youngster.

"Ever since 1905 I have been employed in the transportation field—35 years with railroads and, more recently, on the staff of Oregon's Public Utilities Commission. I am also secretary of the Casey Jones Railroad Unit for the advancement of railroad stamp collections. Would like to buy photos of Coal & Coke locomotives." •

A NEW problem faces America's railroads as a result of the fact that the steam iron horse isn't as heavy on his "feet" as the modern diesel locomotive. The steamer has bigger feet and more of them. Diesels wear out the rails faster, especially on curves.

University of Illinois engineers working on the problem have found that high-silicon rails, which cost about the same as standard carbon steel rails, may be the solution. The silicon rails, in laboratory tests, stand up twice as long as standard carbon steel. These tests are being financed by the railroads and steel mills. Some silicon steel rails have already been placed in service on railroads. •

STUB SWITCHES are very common in the White Pass & Yukon yards, even more so than they were on the old Rio Grande Southern, reports Dr. George T. F. Rahilly, Sweet Bldg., Fort Lauderdale, Fla. •

WESTERN PACIFIC train dispatcher Peter Josserand, 233 41st St., Sacramento 19, Calif., brushes aside "nostalgia for the good old days" with these words:

"Actually, there is as much romance in railroading today as there ever was. It never has been anything but a job of hard work. We have just as many interesting problems to solve as the oldtimers had; they're just different. You have to back off to get the romantic perspective which time lends to the past. One big problem for a writer of present-day railroad subjects is how to stay out of the official hair.

"Two of the best throttle-jerkers I know, Ray Cope and his son Will, both Western Pacific men, are forever battling about whether the younger fellow has it as tough as his father had. With today's CTC and diesel power, Ray could easily duplicate his dad's outstanding performances of the past. However, the standards of performance have changed. Our freights move at speeds greater than passenger trains did in the hey-day of steam power and train orders. Today's engineer has it just as tough as his father had. He has more to do with, and better performance is required. The same applies to dispatching. CTC makes it easier, but the delays of train-order days are no longer tolerated." •

SECOND TRICK IN THE DESERT

DOWN yonder in the sandhills,
I hear the Navajo drums
Beatin' out their evenin' songs
As twilight softly comes.

The stars shine so clear and bright
And hang so low, it seems
I could reach up and pick a few
To wrap around my dreams.

The Morse wires hum a lonely tune,
The dispatcher's phone is still;
The tinkle of soft laughter floats
From the shacks below the hill.

Sittin' here in peaceful reverie,
With God's world all vast and still,
I know it's just one step to heaven
From this Arizona hill.

—Douglas W. Ward

INDEPENDENT HOGGER. "When I was in my teens," recalls James N. Reynolds, Box 687, Lake Wales, Fla., "the Alabama & Vicksburg (now part of the Illinois Central) had an extra engineer named Barney Comiskey. Barney was pulling a construction train with a Baldwin eight-wheeler, this train being a string of flats with shovel-hands making fills. His custom was to sidetrack his train and eat dinner in his boarding house while the laborers were eating from buckets and boxes.

"This practice did not please the bossy superintendent, who could view the waiting train from his office window. One day, instead of phoning the shop foreman, the super decided to look into the matter. Arriving at the train, he was told that the engineer had not returned from dinner. The brass collar waited. When Barney got back to his engine, the super asked:

" 'How's this? You've been gone over an hour.'

"Barney had heard about the super but had never seen him. Drawing out his watch, he said calmly: 'Sure an' that's a damn lie. I been gone forty minutes.'

" 'After this,' said the super, 'you will eat your dinner on the engine.'

"Barney retorted: 'See here, Jerry, I pay twenty dollars a month for me board, an' I expect to cross me legs under the table three times a day for three square meals.'

"With that, he climbed into his cab, leaving the super flabbergasted and the laborers howling with glee. Then he backed his train out of the siding as if nothing had happened. The super never disciplined him." •

SCARED STIFF. "One night while I was a Canadian National brass pounder at Kindersley, Sask.," writes John N. Haggerty, Box 51, Boston 1, Mass., "I rode a sleeping car and got up shortly after midnight for a smoke. Returning from the smoking room, I dived into my berth. At that instant I heard a blood-curdling scream.

"Yes, I was in the right berth. Wrapping the covers around me, I sat perfectly still and waited. Nothing else happened. I peered out at the aisle. The porter ran past me excitedly. Well, I was terrified, but finally went to sleep. Several days later I solved the mystery. I was telling my experience to a group of trainmen. One of them said: 'Oh,

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that's the lady who has nightmares. I don't blame you for being scared.'" •

MASCOT of the Bangor & Aroostook tower at South LaGrange, Me., and personal property of Walter Cook, clerk-operator, is a shaggy dog named Rex. This dog saves his master many steps by carrying the mail. All the operator on duty has to say is: "Go get it, Rex," and the animal will walk downstairs, push open the heavy tower door with his paws, pick up the message that has been thrown off a passing train, and bring it upstairs. Even in heavy snowdrifts or at night, Rex never fails to find the message. •

NANCY HANKS II, the Central of Georgia streamliner, recently passed its seventh birthday with a record of handling nearly a million and a quarter passengers and covering a total distance equivalent to more than 60 times around the globe at the equator. This train is unique in that it bears the maiden name of Abraham Lincoln's mother but was not named directly for her. It was named for a famous racehorse which, in turn, had been named for Mrs. Lincoln. •

CANADIAN NATIONAL, having completed a 188-mile branch line from Cranberry Portage to Lynn Lake, Man., to serve a new mining development, has just added 12 new station names to its long list in the *Official Guide*. These are mostly the names of local residents and of railroaders who helped to build the line. Main purpose of the branch is to carry ore, but passenger service is operated for miners and their families. •

"PRINT more photos of engines built after the turn of the century, especially Mallets," urges Steve Borstad, 4306 Mayberry Ave., Omaha, Neb. *(Editor's note:* We think Steve will enjoy the feature article on Southern Pacific cab-in-fronters, by David L. Joslyn, retired SP locomotive draftsman, that is coming in the near future.) •

TRACKSIDE GRAVES. *Tracks* magazine tells of two Chesapeake & Ohio men, Engineer Arthur W. Blackburn and Brakeman Benton H. Ridgeway, who are buried in Hollywood Cemetery, Richmond, Va., within sound of trains that daily pass over the C&O's James River line. Each grave has a granite tombstone that pictures an engine and tender identified as "C&O." Blackburn died in 1918. According to the story, Ridgeway so admired the headstone that when he himself passed away less than a year later his widow erected a similar marker. In the same cemetery you can see the monument of another railroad man, James F. Valentine, who went to glory in a train wreck December 20, 1874. His epitaph reads: "In the crash and fall he stood unmoved and sacrificed his life that he might follow his trust." Into the stone is chiseled the likeness of a diamond-stack engine with the initials "N. O. St. L. & C. R.R." (the old New Orleans, St. Louis & Chicago Railroad). •

"I LIKE your new format, but one thing bothers me," writes Arnold B. Joseph, 2512 Tratman Ave., New York 61, N. Y. "Please don't turn *Railroad* into one of those slick magazines with nearly all pictures and little reading matter." *(Editor's note:* We won't.) •

MOLLY THE MOOCHER is, perhaps, the only cat with a permanent home in a red caboose, reports Kenneth P. Bayne, 2705 Lakewood Ave., Los Angeles 39, Calif. Molly showed up in 1945 at the Links shanty in the SP's River Station Yard at Los Angeles. The boys began feeding her, and in no time at all the calico cat made herself at home.

While Molly was nursing a family of four kittens, a mudhop found another kitten, abandoned in a car, and put it with her offspring. She showed bewilderment, but soon adopted the stranger and raised it with the family.

Last January a boxcar crashed into the shanty, destroying it. Of the five men in the building at the time, two were badly hurt. The cat had been in her favorite spot under the light on the register desk. After the injured men had been removed in an ambulance, Mr. Bayne called, "Molly!" A faint mournful *meow* came from the rubble, and Molly emerged, distressed but unhurt. It took her some time to get adjusted to living in one of the two cabooses that the company sent to the spot for use as a shanty and a yard office, replacing the old shanty.

"Recently," Mr. Bayne adds, "some fellow tried to kidnap Molly. He was walking out of the yard with our mascot in his arms when a hogger spied him. Engineers and switchmen surrounded him. If he hadn't dropped the cat and run, he might have had the shape of his head changed with brake clubs and monkey wrenches."

FIVE water columns, known to railroaders as "plugs," each standing 16½ feet above the rails in the Santa Fe yards at San Bernardino, Calif., have just been dismantled because there are no longer any steam locomotives in the vicinity for them to water, laments A. C. Denis, 7629 Lindley Ave., Reseda, Calif.

These plugs, each with a spout to fill engines from the top, received their water through 12-inch mains from nearby roundhouse storage tanks. Each could fill an engine's 20,000-gallon tank in about 12 minutes. None has been used since last August, because of the Santa Fe's dieselization. •

BOOMER. Following in his father's footsteps, Elwyn DuHadway started railroading at 15 as a Missouri Pacific fireman, reports William W. Lutz of the *Detroit News;* but at 18, in Otterville, Mo., the young railroader thought he had come to the end of the road. Traveling at about 70 miles per hour in a passenger locomotive, he saw the rails ahead suddenly blocked by a freight train that had failed to clear the main line.

In some respect it was like the finale of the Casey Jones story, except that the hogger, a wiry fellow of 72, suffered nothing worse than a broken collarbone, while DuHadway awoke in a hospital with fractures of the left leg and arm, the collarbone, and three ribs. However, he got over it, and went booming, taking railroad jobs here and there. He worked as a fireman and an engineer on hand-fired engines, and there were times when he'd groan at hearing the blast of a locomotive whistle because of the steam it used up.

He worked in Manitoba. Also on the Alaska Railroad, sometimes in temperatures that he says sank as low as 68 degrees below zero, and on a United Fruit Co. railroad in Nicaragua, where so much heat filled the air that he thought the locomotive should be able to run on it.

In 1933, when the Depression struck, DuHadway, with a wife and six children at home, was working for the Detroit, Toledo & Ironton—but not for long. The DT&I laid him off. That ended his 30 years of railroading.

He's now a Detroit drawbridge tender, dreaming of wheels pounding over steel rails, and Consolidations climbing grades, and ops emerging from dimly lit depots at dead of night to hand up flimsy green, yellow, and white train orders. •

LOOKING BACK to his youth, Roy W. Howard, 3118 S. Center Ave., Arcadia, Calif., thinks of the triangular half-block across from the Santa Fe station at Osage City, Kan., which was a mud-hole, a frog pond, an eyesore and a catch-all, and recalls how the railway cooperated to make it a beautiful park with trees and a fountain.

"I remember, too," he says, "that sometimes in winter the city's black gumbo mud would become so sticky and apparently bottomless that not even a husky mule team could move an empty coal-wagon that was mired in it. At such times, as a public convenience, the Santa Fe would park a loaded coal car right on the main street-crossing so that the people could cart away their fuel along the sidewalk. Sure, the cars were in the railroaders' way, and much switching was required to by-pass them, but the needs of the townsfolk came first. The irony of the situation was that the coal mines were just on the outer edge of town, but the intervening quagmire made them inaccessible to everything but the railway.

"In those days we fellows would make fishing trips to the river near Reading, Kan., often catching many fine fish. We'd take them to the Reading depot and put them aboard the baggage car. Later, the baggage man would turn them over to the station agent at Osage City, saying: 'This one is for Joe, and this one for Jim, and so on.' Of course, we gave some to the train crews." •

46 YEARS ago Frank Rose, now living at Yucca Valley, Calif., was working for the Boston & Albany at Allston, Mass., first with the locomotive stripping gang and later with valve setters in the repair shops.

"We worked in the back shop stripping heavy freight hogs and refitting them as double-ended local passenger engines," he writes. "This power was used on the figure-8 circuit out through the Boston suburbs and back in again to and from South Station. Being double-

(Continued on page 69)

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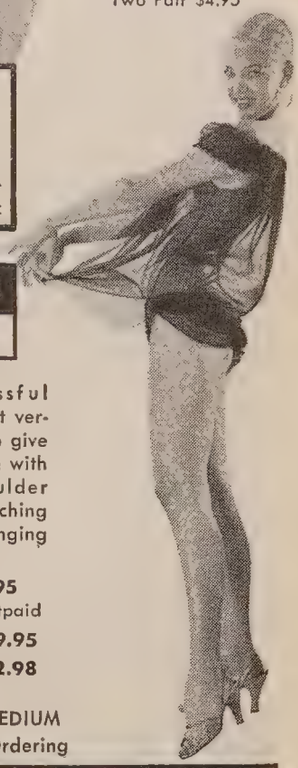

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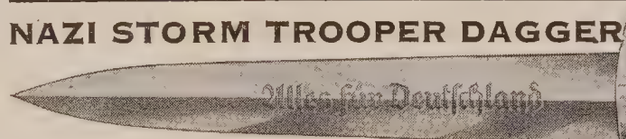

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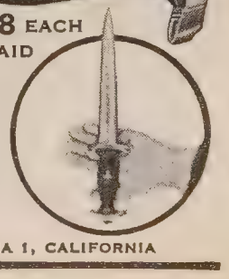

This curious weapon was the ceremonial dagger of the elite storm troopers (S.A.) of the Nazi party. It is actually a scaled down version of the ancient Teutonic broadsword and was originally chosen by Hitler as a symbol of his glorification of the Wagnerian legends — then used as propaganda to unite Germany under Fascism. This small supply was found by our European representative in occupied Germany. They are in mint condition. The 8¾" steel blade is thick and massive. Overall length 13¾". The round escutcheon on upper handle is the "blood and steel" colored symbol of the storm trooper — the initials S.A. in form of lightning bolts. Below is the eagle and swastika of the German army of that era. An excellent hunting knife, a remarkable find for the collector. Send check, cash or money order. Add 80c per knife for U. S., APO or FPO air mail. Sorry, no C.O.D. California residents add 3% state tax. Dealers inquire.

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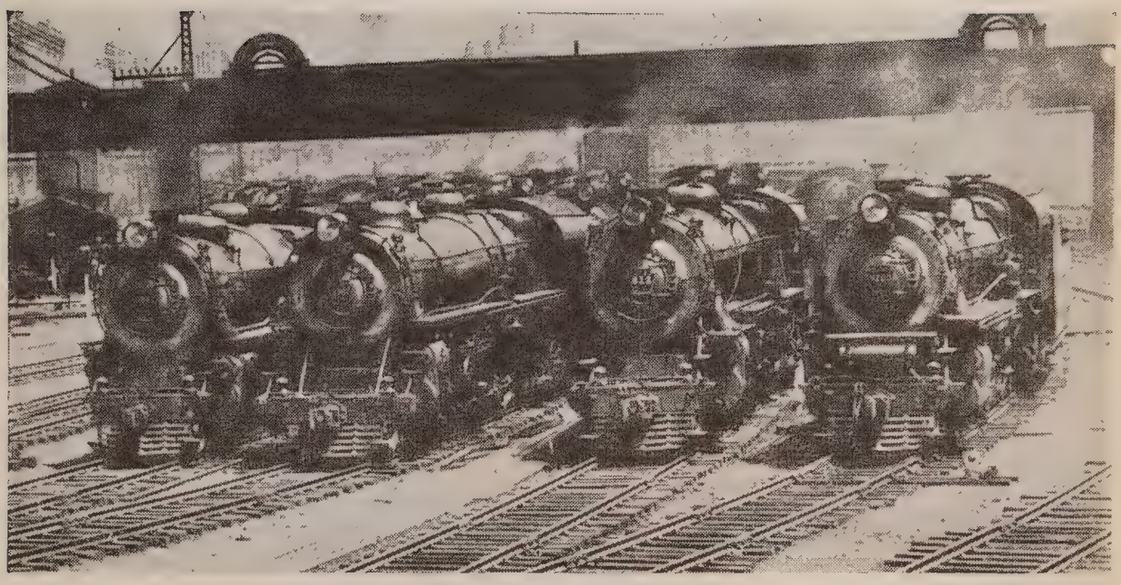


Before the catenary came to Philadelphia in 1932, Nos. 1467 (E6), 3367 (K2), 612 (K4), and 5700 (G5) awaited transfer near site of new 30th Street Station. Viaduct at rear carried freight trains over the city.

pennsy power parade

The Assembly-Lined Diesel Is Undermining the Keystone Road's Proud Tradition of Individuality in Locomotive Design

by WALTER A. LUCAS

THE PENNSYLVANIA, with more than 10,000 miles of line in thirteen states —26,000 miles if you include all trackage—was producing steam and electric locomotives of its own design—good ones, too—for operation peculiar to its own requirements. Then, a few years ago, along came the diesel-electric.

This foreign-born newcomer not only changed the geometrical pattern of railroads in general, turning the *round*house into an oblong, and razing the long-familiar water towers and coal chutes, but also put an end, to some extent, to the Pennsy's proud tradition of exclusiveness in motive-power design.

For the diesel, as everybody knows, is a stock machine assembly-lined by the builders of oil-consuming engines. Gone is the age of individualism—gone like last summer's footprints in the sand. Today, wherever you travel, you find the same diesels, the same "growlers," with no practical variation from road to road except the paint jobs. The industrial revolution is complete.

Back in 1847, when the Pennsylvania Railroad began to operate, it inherited a medley of motive power, including relics from the state-owned lines, and it added to this collection, as time went on, with various types from the roads it acquired later.

These souvenirs included Norris

Walter A. Lucas

Long-gone now, No. 80, Class D-16-B, looked like this pulling a local into Newark in 1915.

and Baldwin single-drivers, and flexible-beam engines, 4-4-0 specimens from various builders, Winans camels, and Stevens 6-2-0 freaks. Also the *Monster,* an 0-8-0 Boris Karloff freight-hauler with a Rube Goldberg driving mechanism, and Baldwin 4-2-0s, and some 2-6-0s of quaint construction, plus a lot of really big 4-4-0s.

From this heterogeneous mass the Pennsy could not expect to get good results. It was plain that the locomotive types had to be standardized. So, as early as the 1860s, motive power men with vision and determination began to draw up designs with a view to standardization. But other factors intervened. The Civil War, for one thing. As a result, the company dragged its feet for twenty years.

A queer mixture of iron horses was in use when the war started, but once the drums and cannons were silenced, the Pennsy resumed its drive. Its president had been in Abe Lincoln's cabinet, a fact which contributed much to the road's prestige and opportunities for expansion.

Between 1868 and 1872 the PRR had eight different classes of passenber, freight, and switching engines designed and built. These included several wheel arrangements which were then commonly used on the nation's railroads, such as the 4-4-0, or American type; the 0-6-0 yard goat; the 4-6-0, or Ten-Wheel type, and later the 2-8-0, or Consolidation. Sundry 0-4-0s and some peculiar 2-6-0s also performed switching service.

By extending its trackage here and there and absorbing short lines, the Keystone system grew like a banyan tree. Some of its new acquisitions had been built before the parent road was formed. One such line, the Camden & Amboy, in New Jersey, boasted as its No. 1 locomotime the so-called *John Bull,* the first engine anywhere to have a "cowcatcher." This oldtimer is still preserved and is the oldest original locomotive in the country. You can see her in the Smithsonian Institution at Washington, D. C. The railroad has built a full-size replica of her for exhibition purposes—that runs under her own steam.

EARLY in its motive-power career the Pennsy decided upon heavy and powerful engines for its

important trains, and since then many great examples of this policy have run on the road. The continued growth of the size of standardized power led to the present system of locomotive classification, which was adopted in 1895. Up to that time there had been built a total of sixteen principal classes of 4-4-0's, six 2-8-0's, three each of 0-4-0, 0-6-0, 2-6-0-, and 4-6-0's. All of these have since been replaced by more modern power.

From away back, the pet theme of Pennsy motive power men has been standardization of locomotive design. It was almost a fetish with them. Nevertheless, the policy was elastic. It left the way open for any new type or improvement that would show more efficient and economical operation.

When the advocates of compound steam cylinders came to the fore in 1889, the Pennsy went for this idea and bought a locomotive of English build that was so equipped, and tried her out on their own lines. This was followed in 1892 by a home-built Altoona shop job based upon European design; and that year both the Baldwin and Schenectady works contributed their share.

But none of these compound engines came up to expectations, so for the next decade the road was content to use conventional locomotives, which, as the years passed, were heavier and heavier to cope with longer and faster trains.

In 1904 the Pennsy conducted another trial of a compound. A DeGlehn 4-4-2, imported from France and exhibited at the St. Louis World's Fair, was operated in competition with a Cole four-cylinder compound built by Alco and a Vauclain balanced compound from Baldwin. The French engine was adjudged too light for the ever increasing weight of passenger trains, and was scrapped. About the only worthwhile thing obtained from her was the design of the Walschaerts valve gear, which thereupon became standard on the Pennsy.

Since that time the road has been allergic to compound cylinders, except for the Mallet system applied to some articulated jobs which are still in service.

During its long history the Pennsy also has dabbled with other oddities in motive power, including the late high-stepping No. 6100 of the S-1 Class. If you visited the New York World's Fair in 1939 and '40 you certainly saw her, mounted upon a series of rollers and standing still but performing under her own power. This engine was a 6-4-4-6, with two pairs of simple cylinders operating two sets of driving wheels.

Following this unique job came one of Class S-2, No. 6200, with a 6-8-6 set up. Her drivers were coupled, but instead of being operated by conventional steam cylinders, a

D. A. Somerville Collection

American-type No. 1890 was a fast passenger hauler with high wheels and a high stack.

Charles A. Elston

No. 4149, a 2-8-2, L1 Class, crosses a switch at Norris Tower near Norristown, Pa., onto the Trenton Cutoff freight line.

geared steam turbine ground out the power between the boiler and the rail.

Then came another set of divided-drive, rigid-frame engines of the Q Class. One of these was arranged as a 4-6-4-4 and the remainder as 4-4-6-4s, all in freight service. Finally, the T-1 Class was designed somewhat along the original S-1 idea but as a 4-4-4-4. Fifty-two T-1 engines were built for fast through passenger runs, at which they excelled. However, inherent weaknesses in their valve gear and excessive flange wear caused them to be set aside and stored, in favor of the newer diesels. Rumor has it that

Frank Quin

Old Dependable: the M1-A. Engine 6733 often rolled past Elizabeth, N. J., passenger station with a westbound freight out of Greenville yard before line was completely electrified.

No. 198, E6 Class, takes a spin on the table. A sister E6, No. 460, holds the Washington-Newark steam speed record of 216 miles in 175 minutes flat, chalked up June 11, 1927.

Harold M. Lambert

they are to be rebuilt as conventional 4-8-4s, but the scrap heap will more likely be their fate, sorry to say.

Nor has the experimenting ended with these steamers, for just recently two electric locomotive builders have turned out several motors that are being tried in heavy freight drags to supplement the older electric types.

Some of the most popular steamers that ever ran on the Pennsy were those of the famous D-16 Class, built in five sub-classes. The D-16s were the last of the 4-4-0 passenger locomotives dating from the turn of the century. They were succeeded

James H. Allen

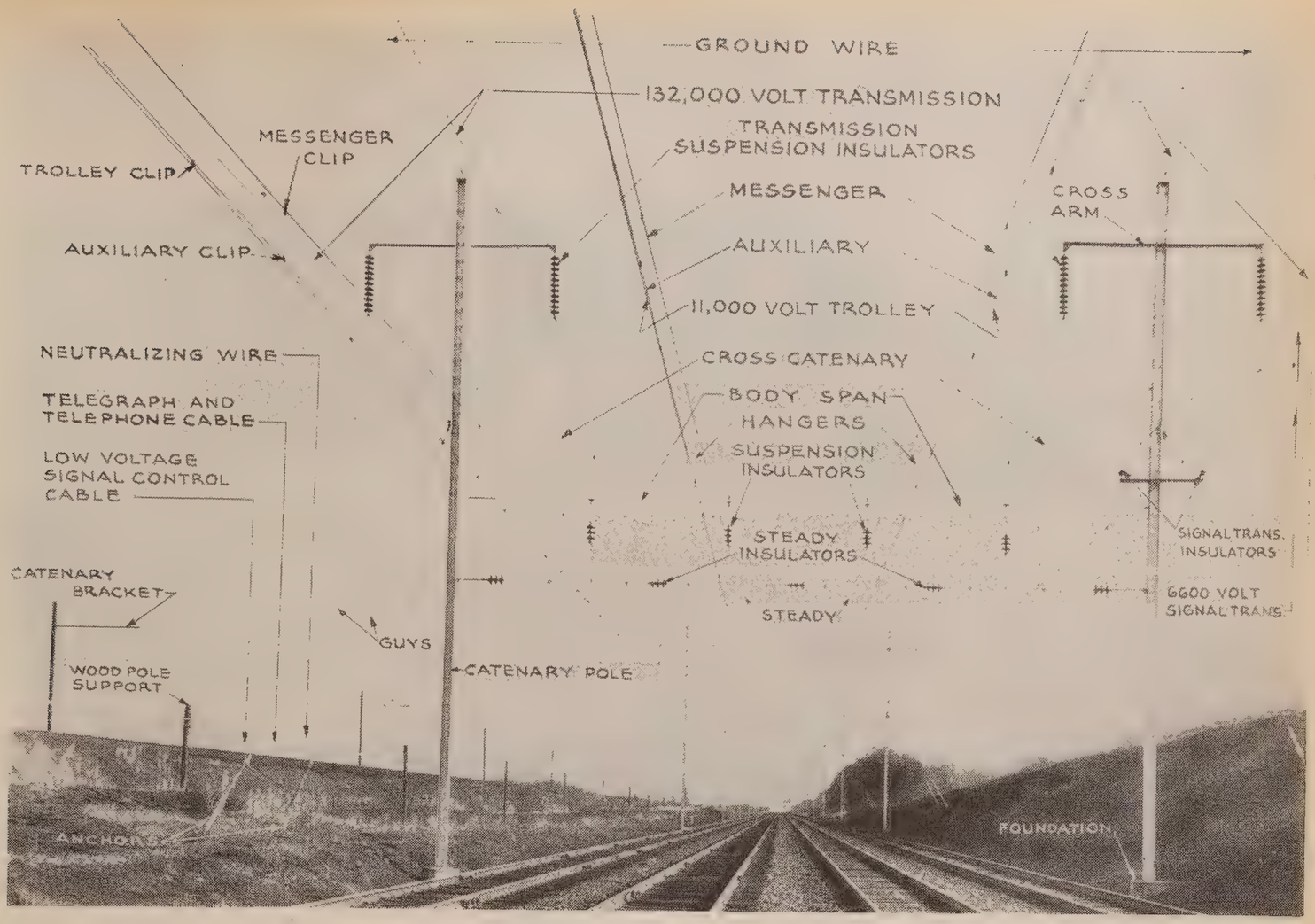
This M1 Class Mountain type, No. 6804, once settled back on her track for a much-needed service stop.

pennsy power parade CONTINUED

These shadowy tightrope artists check catenary wires somewhere above Pennsy electrified lines.

The Senator, one of PRR's newest trains, crosses Jersey Meadows outside Hudson River tunnels.

Four GG-1 electrics await assignment at Sunnyside, N. Y., world's largest passenger railroad yard.



Catenary wires on main line east of New Brunswick, N. J. Camp Kilmer lies over bank at left.

by engines having wider fireboxes and trailing wheels. Some of those originals were superheated and acquired further reclassification.

THE ADOPTION of trailing wheels under the firebox gave the locomotive greater steaming capacity, which meant she could haul longer and speedier trains. First to be seen on the Pennsy were three 4-4-2 engines of the E-1 class. Not only was the firebox made unusually wide, necessitating a double cab arrangement, but the engine also had the Belpaire top to the boiler so familiar to most Pennsy steamers.

These engines were Camelbacks in cab arrangement, similar to Philadelphia & Reading engines of the period, with which they were to compete on the fast runs between Jersey City and Philadelphia. However, they were not popular. They soon gave way to more improved Atlantics of the E-2 and E-3 classes, several hundred of which were on the road. A much heavier type, the E-6, came later; and a few of these are still in service.

Trailing trucks were tried on two new 2-6-2 Prairie-type engines, but were not successful in high-speed service, and the 4-6-2 came next. This class, the K-28, was first tried out when Alco built an experimental engine for the Pennsy in 1907. The road, meanwhile, had designed a 4-6-2 to be Class K-1, but the Alco job proved to be just what they needed, so no K-1 engine was built.

Classes K-2 and K-3 were based on this experimental locomotive. The ultimate came with the Pacific type. The K-4s was turned out in 1914, followed later by several hundred others, of which 195 are still on the roster. At the same time a Mikado freight engine, L-1s, was built with many features like the K-4s. More than 575 of these were built, being the first modern freight engines on the road with trailing wheels.

For the past half-century, Consolidations of classes H-6 to H-10 have turned in a great performance as freight-haulers. Even today, you can see a few of the old H-10's chugging around the Pennsy yards in switcher service. The men like 'em. When these classes became too light for the exacting demands of the main line, they were succeeded by the L-1 Mikes, already mentioned, and I-1s Decapods, first built in 1916. The latter can wheel the heaviest freight. They made such a hit that the management ordered about 600 and put them to work. Some are still working.

Two classes of ponderous 2-10-2 freight hogs were developed about the time of World War I to haul long strings of loaded iron ore and coal cars. These became known as Class N-1s. Shortly afterward, another batch of them was built from

pennsy power parade CONTINUED

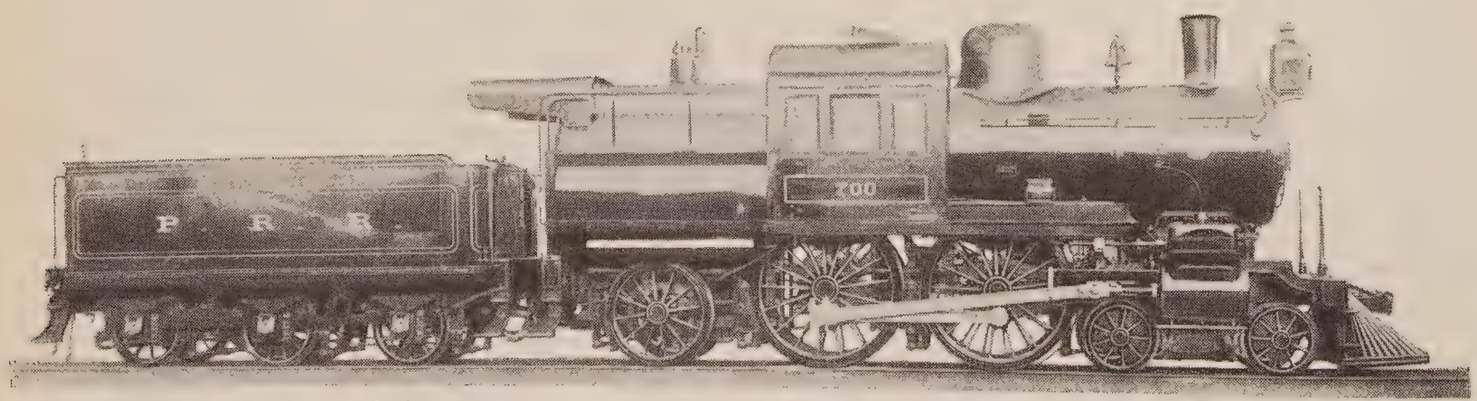
Harry H. Schodde Collection

Old 7606, American type, old Class O, new Class D-8-a, built at Altoona, March, 1888.

plans of the United States Railroad Administration and it was classed N-2s. The latter engines, not being up to Pennsy standards, were rebuilt with Belpaire boilers so that now they conform to the road's common practice. Two classes of 0-8-8-0 articulated engines, CC-1 and CC-2, also went into service in the ore districts, but you can't find any of them left today.

Last but not least of the Pennsy freight-haulers are the 125 big 2-10-4s, classes J-1 and J-1sa, which were turned out during the war years of 1942 through 1944 at a time when the United States Government insisted that no locomotives of new design be built. At that time the Pennsy borrowed a 2-10-4 from one of her neighbors, the Chesapeake & Ohio. From this borrowing resulted, a group of huge engines capable of hauling the heaviest freights.

The number of steam switchers on the route of the Keystone has been dwindling rapidly. For example, only two 0-4-0s of Class A-5 remain, together with some 0-6-0s of B-6 and B-8, having several subclasses. These were the types first given to the blow-torch when the new diesel switchers bowed in. All of the biggest goats, 0-8-0s, Class C-1, used for hump-yard pushing, have vanished into scrap metal.



Ordered at the turn of the century to compete with Reading's famous Camelbacks, this baby had a combination Belpaire and Wootten firebox. Pennsy had only three, sold them to the Long Island.

These changes were made in the interest of progress and greater efficiency. Even so, steam fans are not very happy about them.

Some of the machinery and other details of the 4-Ks Pacifics are similar to the E-6s Atlantics. In fact, the K-4s is really an extended version of the E-6s, having one more pair of driving wheels. Further developments in passenger service called for a heavier steam locomotive, so in 1923 the Pennsy brought out a 4-8-2 type, Class M-1, which could wheel the redball freight. This type was so effective that many of them are running today.

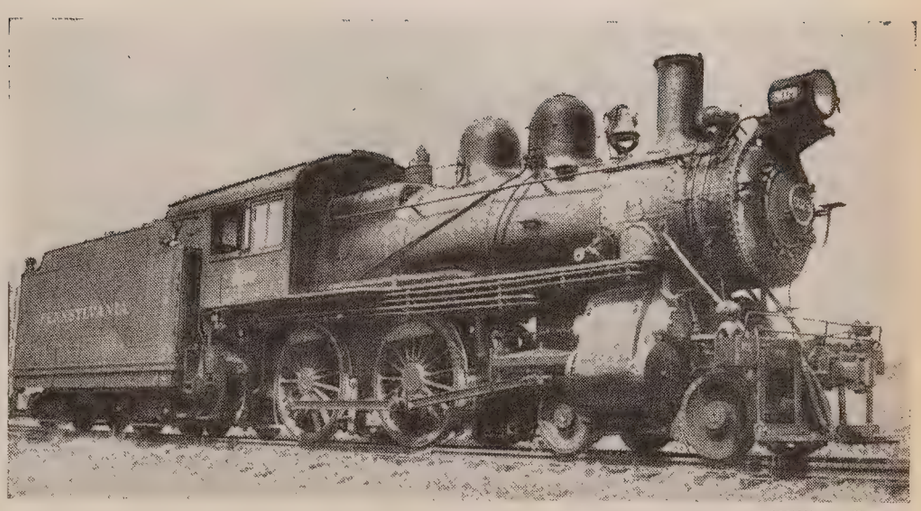
Should the Class T engines be converted to 4-8-4s, this would give the Pennsy another pool of heavy, fast, passenger power capable of continuing the good work done by their Class M sisters.

At the time the M-1 was being designed, a type of lighter passenger engine was developed, primarily for suburban service. This was the Class G-5, and a group was built in 1923 and '24. Several of these went to the Long Island, where some still may be seen today.

THE PENNSYLVANIA was sitting pretty. Its mighty arms of steel stretched out from Philadelphia to New York and Washington and westward as far as Chicago and St. Louis, embracing the most important cities in America. Day and night its endless fleets of cars loaded with black diamonds rolled out from the nation's richest coal-producing state, around the Horeshoe Curve to the Atlantic seaboard or westward across the prairie lands and mountains.

Steam was in the ascendency. And the Pennsy had developed a breed of steam horses that the rest of the world envied.

Then one day third-rails were installed, and a bit later the catenaries began to sing. Here and there steam gave way to juice. But the old

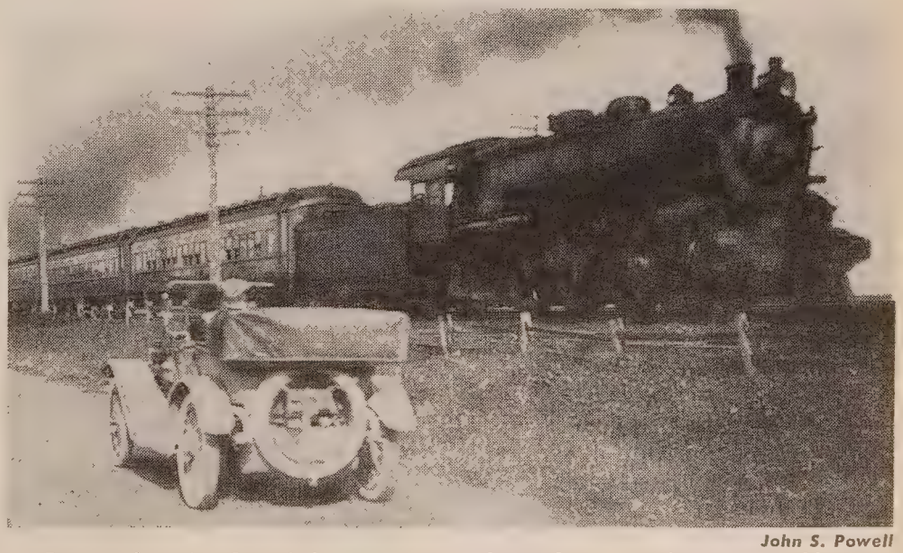


William Grant

Juniata built this D-16-sb American, No. 5079, in 1900.

James F. Byrne

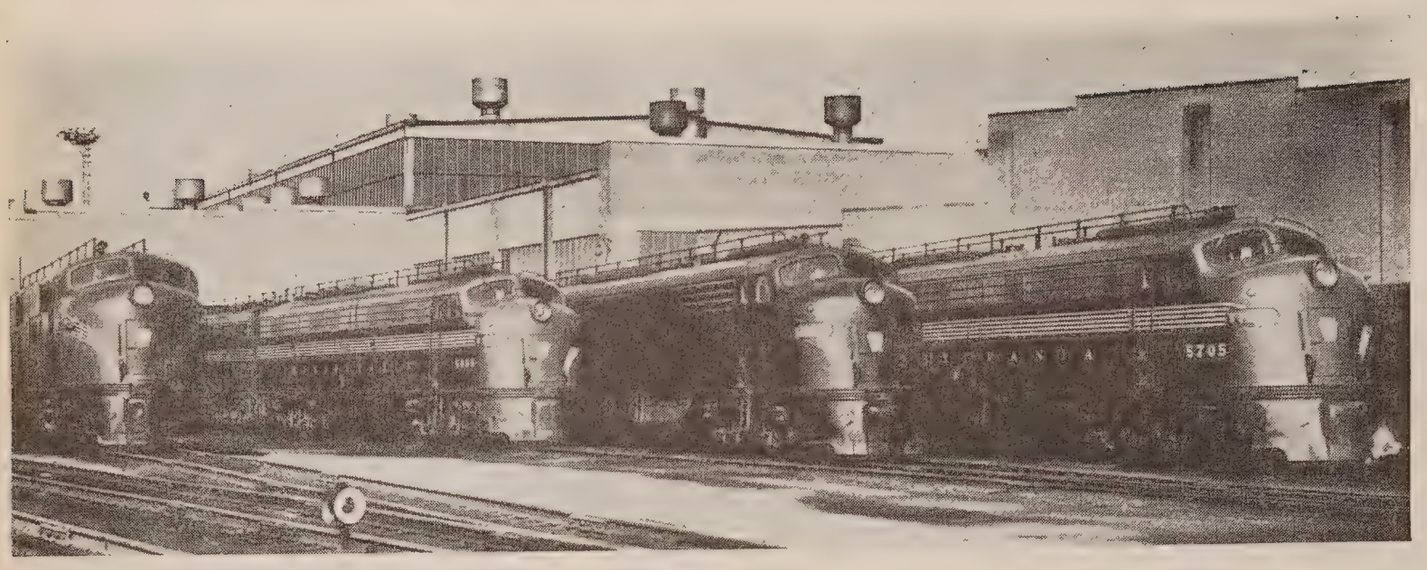
Narrow-gage Washington & Waynesburg line in Pennsylvania, now abandoned, once carried this 2-6-0. Numbered 9684, she was turned out by Juniata in 1903, classified F-odd.



John S. Powell

***Pennsylvania Special* met many horseless carriages on New York Division in 1910.**

pennsy power parade CONTINUED



On the ready track at Harrisburg, Pa., diesel-servicing shops: four Electro-Motive passenger speedsters.

ideas remained so strongly entrenched that not even the powerful and smartly stylized electric locomotives which ran between Broadway and Pennsylvania Avenue, through Philadelphia en route, and as far west as Harrisburg, were regarded as a serious challenge to the time-honored steamer.

The Pennsy was still pre-eminently a steam-powered system and, according to historians of the day, would remain so until the last flag was whistled in. How could it be otherwise, even with the encroachments of modern electricity, when the Pennsy, like its ally, the Norfolk & Western, had an unbreakable backbone of coal?

But meanwhile, over in Germany, beside the Rhine and the blue waters of the Danube, a bespectacled genius named Rudolph Diesel was busily developing some revolutionary schemes of his own with regard to motive power. That was prior to World War I—in fact, Dr. Diesel died under mysterious circumstances just a few months before the Kaiser's troops goose-stepped across Belgium and France—and in those days very few railroad-minded Americans showed much interest in Dr. Diesel's invention. But plenty of them are interested now.

The Pennsy operates the most extensive electric main-line railroad in the country. Besides the main, their secondary lines are electrified, such as the low-grade freight lines and the Camden & Amboy Division.

All of this did not come into being overnight. It originated in a small way in 1910, when the Keystone obtained a foothold on Manhattan Island, which up till that time had been the stronghold of the Vanderbilts' New York Central. Access to New York City from the Jersey meadows by under-river tunnel instead of by slow-moving ferry gave the Pennsy a shot in the arm. The electrified portion of the line in New Jersey ended at Manhattan Transfer near Newark. This made about ten miles of route equipped with a third rail to carry the direct current for operating trains.

After studies and tests had been made with several types of electric locomotives, railmen dubbed one of the experimental electrics, *Phoebe,* an affectionate term evidently reminiscent of the Lackawanna's "Phoebe Snow," then at the height of her popularity. Both names indicated their cleanliness when compared with their coal-burning, smoke-belching sisters.

The new design they agreed upon was that of the 4-4-0. This was similar to a steam-locomotive wheel arrangement, the difference being that no boiler was used and a large electric motor provided the power to propel the engine through the medium of a large main rod and jackshaft. Two of these units were permanently coupled together to form a 4,000-horsepower locomotive classed as DD-1. So well did these new juice hogs perform that they continued in service as long as direct current was used. A few are still pulling freight on the Long Island.

When the electrified portion of the Pennsy was extended, alternating current was chosen for the driving power. Several experimental locos were built and tried out. One of these was a huge 2-6-6-2, Class FF-1, freight-hauler. Another was a 2-4-4-2 passenger type. Several of the latter were built and used for awhile on the DC track.

EVENTUALLY, when the overhead wiring was completed, between 1933 and 1938, these class L-5 electrics were scrapped, and a new 4-6-4 type, the P-5, was built in large numbers for through service. Their motors have a rigid driving-wheel base. Placed in fast service, they

(Continued on page 53)

Progress alters railroad geometry. The rectangles of Harrisburg's diesel shop nestle against spread fan of steam power roundhouse. Diesels enter at bottom for servicing, emerge ready for runs north and west.

LOCOMOTIVES OF THE PENNSYLVANIA RAILROAD

STEAM LOCOMOTIVES

Class	Tractive Effort	Total Weight	Engine Weight	Drivers	No. Built	Years Built	Builder
A5s	30,192	252,900	131,750	50	3	1916-1917	PRR
B6sb	36,144	303,800	180,300	56	60	1916-1927	PRR
B8a	29,871	167,700	167,700	56	5	1905-1912	Baldwin-PRR
H6sb	42,168	372,450	180,900	56	2	1905-1906	PRR
H9s	49,183	410,200	223,300	62	146	1907-1917	Baldwin-PRR
H10s (SF)	53,197	444,470	226,960	62	37	1912-1917	Alco, Baldwin, Lima
H10s (HF)	53,197	424,070	223,000	62	125	1907-1919	Alco, Baldwin, Lima
I1sa	96,026	585,800	347,500	62	36	1916-1923	PRR, Baldwin
I1sa (FWH)	96,026	590,800	352,500	62	199	1916-1923	PRR, Baldwin
I1sa (FWH & FC)	96,026	577,800	343,400	62	57	1916-1923	PRR, Baldwin
J1	108,750	984,140	377,800	70	65	1942-1944	PRR
J1a	108,750	986,230	379,300	70	60	1943	PRR
L1s (SF)	61,465	523,100	232,500	62	153	1914-1919	Baldwin, PRR
L1s (OF)	61,465	517,800	238,300	62	5	1916-1917	Baldwin, PRR
M1	64,550	796,400	267,000	72	15	1926	PRR, Baldwin, Lima
M1 (FC)	64,550	789,200	267,800	72	98	1926	PRR, Baldwin, Lima
M1a	64,550	768,360	271,000	72	31	1930	PRR, Baldwin, Lima
M1b	69,700	768,360	271,000	72	41	1930	PRR, Baldwin, Lima
E6s	31,275	412,750	136,000	80	3	1914	PRR
G5s	41,328	409,900	178,000	68	9	1923-1925	PRR
K4s	44,460	541,500	209,300	80	190	1914-1928	Baldwin, PRR
K4sa	44,460	554,600	209,800	80	5	1917-1927	Baldwin, PRR

SF—Stoker Fired; HF—Hand Fired; OF—Oil Fired; FC—Fabricated Cylinders; FWH—Feed Water Heaters.

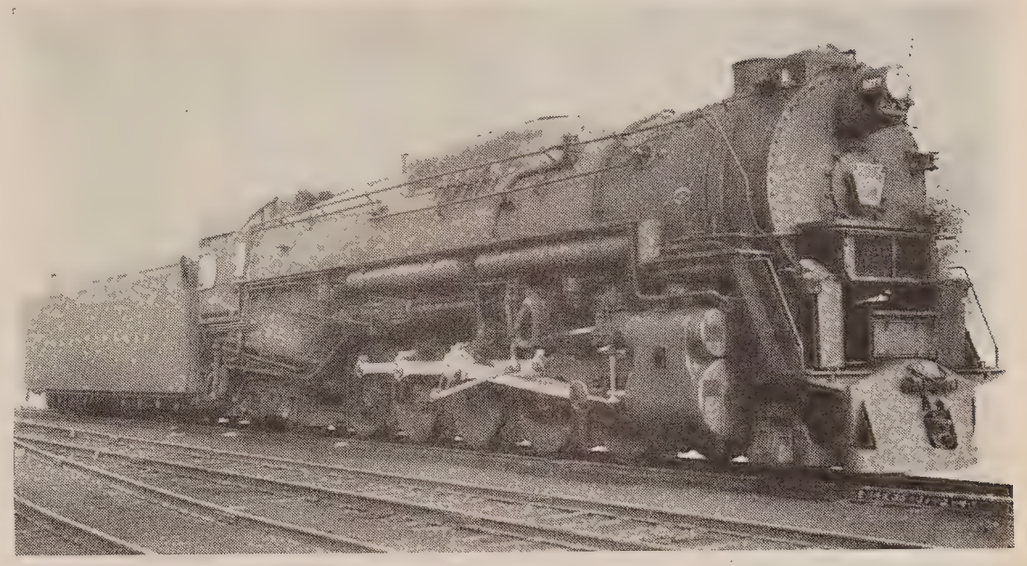
ELECTRIC LOCOMOTIVES

Class	Horse-Power	Tractive Effort	Total Weight	Engine Weight	Drivers	No. Built	Years Built	Builder
B1	570	39,250	157,000	157,000	62	28	1926-1935	PRR
DD-2	5,000	71,500	450,000	286,000	62	1	1938	PRR
E2b	5,000	122,750	491,000	245,000	48	3	1951	GE
E2c	6,000	180,990	723,960	361,980	44	1	1952	Westinghouse
E3b	6,000	189,000	756,000	378,000	44	1	1951	Westinghouse
GG1 (frt)	4,620	75,000	460,000	300,000	57	26	1935	GE (14), PRR (12)
GG1 (frt)	4,620	75,000	460,000	300,000	57	113 (31	1934-1943	GE (1), PRR (112)
(pass)		70,700	477,000	303,000	57	82)		
L6	2,500	55,000	300,000	220,000	62	2	1932	PRR
L6a	2,500	55,250	305,110	221,000	62	1	1933	Lima
P5	3,750	55,000	392,000	220,000	72	1	1931	PRR
P5a*	3,750	55,000	392,000	220,000	72	61	1932-1933	Westinghouse (41), GE (20)
P5a**	3,750	57,250	394,000	229,000	72	28	1934-1935	GE (5), Westinghouse (12), PRR (11)
P5b	5,350	55,000	444,700	233,400	72	1	1932	Westinghouse
O1a	2,500	33,500	309,400	256,100	72	1	1930	PRR
O1c	2,500	33,500	300,000	150,000	72	1	1931	PRR
R1	5,000	61,550	414,710	246,200	62	1	1934	Westinghouse
DD1	1,580	50,850	328,400	203,400	72	2	1910-1911	PRR

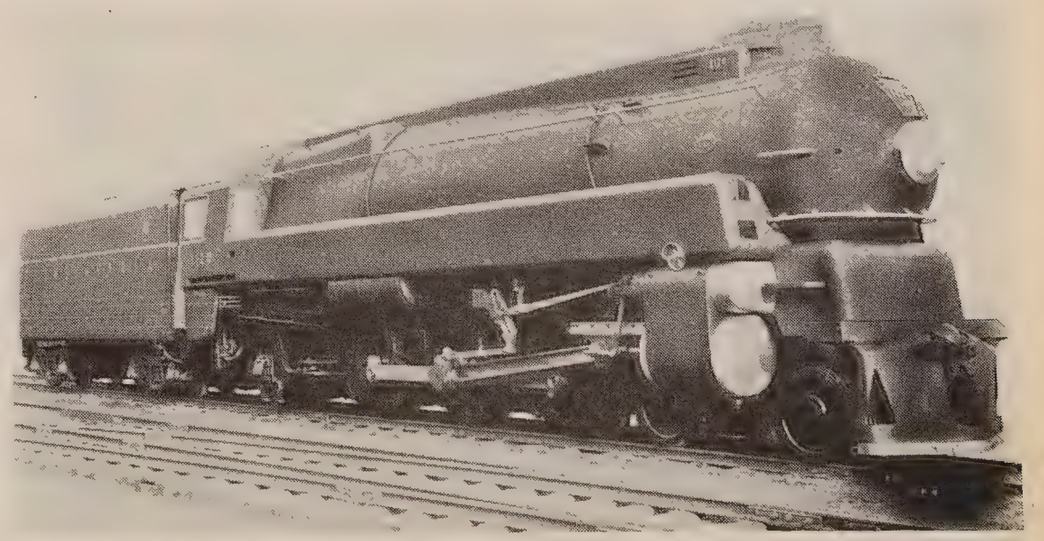
*Prior to 5-1-34 **After 5-1-34

DIESEL-ELECTRIC LOCOMOTIVES

A6b	450	32,500	130,000	130,000	50	1	*1925	PRR-Westinghouse
AS-6	660	49,975	199,900	199,900	40	40	1946-1951	Alco
AS-10	1000	58,525	234,100	234,100	40	66	1948-1954	Alco
AS-10AM	1000	60,600	234,100	242,400	40	12	1950	Alco
AS-10AMS	1000	61,500	246,000	246,000	40	2	1952	Alco
AS-10AS	1000	61,000	244,000	244,000	40	2	1951	Alco
AS-10M	1000	58,525	234,100	234,100	40	10	1952	Alco
AS-10S	1000	62,425	249,700	249,700	40	1	1948	Alco
AS-16	1600	62,150	248,600	248,600	40	1	1951	Alco
AS-16A	1600	90,000	360,000	360,000	40	6	1952-1953	Alco



One of the Pennsy's powerful J1 Class freight locomotives: No. 6774. Sixty-five of these 2-10-4's were put into service between 1942 and 1944.



Several K4s Class passenger engines wore streamlined shrouds during early days of diesel revolution. No. 1120 looked like this in 1940.

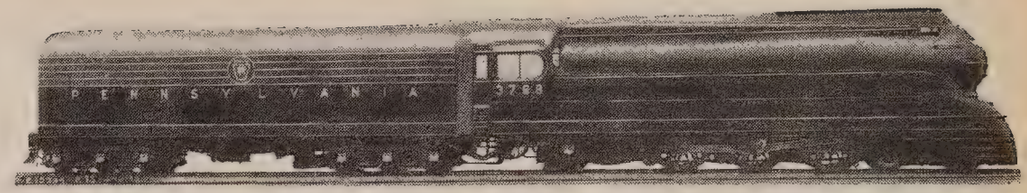
AS-16M	1600	62,150	248,600	248,600	40	53	1951-1954	Alco
AS-16MS	1600	64,900	259,600	259,600	40	45	1951-1954	Alco
BS-6	660	49,400	197,600	197,600	40	12	1942-1945	Baldwin
BS-6A	660	49,000	196,000	196,000	40	99	1948-1949	Baldwin
BS-7	750	49,400	197,600	197,600	40	28	1950-1951	Baldwin
BS-7M	750	49,400	197,600	197,600	40	2	1950	Baldwin
BS-10	1000	60,000	240,000	240,000	40	8	1943-1945	Baldwin
BS-10A	1000	57,125	228,500	228,500	40	121	1948-1950	Baldwin
BS-10AM	1000	57,125	228,500	228,500	40	13	1948-1950	Baldwin
BS-10AS	1000	60,150	240,600	240,600	42	6	1949-1950	Baldwin
BS-12	1200	57,000	228,000	228,000	42	55	1951-1954	Baldwin-Lima-Ham.
BS-12AM	1200	58,300	233,200	233,200	42	5	1951-1954	Baldwin-Lima-Ham.
BS-12M	1200	60,000	240,000	240,000	40	32	1952	Baldwin-Lima-Ham.
BS-12AMS	1200	60,750	243,000	243,000	42	2	1952-1954	Baldwin-Lima-Ham.
BS-12AS	1200	60,750	243,000	243,000	42	1	1951	Baldwin-Lima-Ham.
BS-16M	1600	82,750	331,000	331,000	42	9	1951-1954	Baldwin-Lima-Ham.
BS-16MS	1600	84,900	339,600	339,600	42	2	1951	Baldwin-Lima-Ham.
BS-24	2400	89,750	359,000	359,000	42	2	1951	Baldwin-Lima-Ham.
BS-24M	2400	89,750	359,000	359,000	42	21	1951-1954	Baldwin-Lima-Ham.
ES-6	600	48,500	194,000	194,000	40	86	1937-1950	E. M. Div. (GM)
ES-10	1000	62,100	248,400	248,400	40	32	1941-1948	E. M. Div. (GM)
ES-12	1200	61,650	246,600	246,600	40	43	1950-1953	E. M. Div. (GM)
ES-12M	1200	61,650	246,600	246,600	40	37	1950-1953	E. M. Div. (GM)
ES-15a	1500	90,000	360,000	360,000	40	2	1953	E. M. Div. (GM)
ES-15M	1500	61,400	245,600	245,600	40	56	1952-1953	E. M. Div. (GM)
ES-15MS	1500	62,250	249,000	249,000	40	10	1952-1953	E. M. Div. (GM)
FS-10	1000	60,500	242,000	242,000	40	55	1948-1949	Fairbanks-Morse
FS-12	1200	61,700	246,800	246,800	40	3	1954	Fairbanks-Morse
FS-12M	1200	62,250	249,000	249,000	40	13	1952	Fairbanks-Morse
FS-16M	1600	64,000	256,000	256,000	42	10	1952	Fairbanks-Morse
FS-20	2000	63,500	254,000	254,000	42	8	1948-1949	Fairbanks-Morse
FS-20M	2000	63,500	254,000	254,000	42	30	1948-1951	Fairbanks-Morse
GS-4	390	22,137	88,550	88,550	33	46	1947-1950	GE
LS-25	2500	90,500	362,000	362,000	42	13	1950-1951	Lima-Hamilton
LS-25M	2500	90,500	362,000	362,000	42	9	1951	Lima-Hamilton
AF-60	6000	239,900	959,600	959,600	40	4	1948-1950	Alco
AF-48	4800	184,500	738,000	738,000	40	12	1951	Alco
BF-60	6000	261,500	1,046,000	1,046,000	42	13	1949	Baldwin
BF60a	6000	254,100	1,016,400	1,016,400	42	4	1950	Baldwin
BF-32	3200	128,900	515,600	515,600	42	6	1951	Baldwin-Lima-Ham.
BF-48	4800	191,500	766,000	766,000	42	30	1951-1952	Baldwin-Lima-Ham.
BF-32Z	3200	126,800	761,600	507,200	42	4	1948	Baldwin
BH-50	5000	204,500	1,187,420	818,000	42	12	1947-1948	Baldwin
EF-15a	1500	58,500	234,000	234,000	42	1	1950	E. M. Div. (GM)
EF-30a	3000	117,000	468,000	468,000	40	8	1950-1951	E. M. Div. (GM)
EF-45	4500	175,750	703,000	703,000	40	25	1948-1949	E. M. Div. (GM)
EF-45a	4500	174,650	698,600	698,600	40	39	1949-1952	E. M. Div. (GM)
EF-60	6000	232,500	930,000	930,000	40	1	1947	E. M. Div. (GM)
EF-60a	6000	232,300	929,200	929,200	40	8	1949-1950	E. M. Div. (GM)
EFP-30	3000	130,000	520,000	520,000	40	6	1952	E. M. Div. (GM)
EFP-45	4500	191,750	767,000	767,000	40	14	1952	E. M. Div. (GM)
EH-45	4500	177,700	710,800	710,800	40	20	1947-1950	E. M. Div. (GM)
FF-40	4000	122,860	710,320	491,440	42	6	1948	Fairbanks-Morse
FF-48	4800	192,500	770,000	770,000	42	8	1950	Fairbanks-Morse
FF-60	6000	184,145	1,064,420	736,580	42	12	1947-1948	Fairbanks-Morse
AP-40	4000	103,175	619,100	412,700	40	6	1947	Alco
AP-60	6000	155,200	931,300	620,800	40	1	1947	Alco
BP-40	4000	126,800	761,600	507,200	42	8	1948	Baldwin
BP-60	6000	191,100	1,148,700	664,400	42	1	1948	Baldwin
EP-40	4000	105,425	625,700	421,700	36	30	1945-1949	E. M. Div. (GM)
EP-45	4500	113,000	670,000	452,000	36	37	1951-1952	E. M. Div. (GM)

*Built as Gas Electric—Converted to Diesel Electric in 1947.

GAS-ELECTRIC

A-6	400	32,500	130,000	130,000	50	1	1929	PRR

Note: Because of the large number of Pennsylvania Railroad locomotives, the company was able to provide us only with this classification list, dated March 1, 1954. Wheel arrangements in these classifications for steam and electric locomotives follow: A:0-4-0; B:0-6-0; C:0-8-0; D:4-4-0; E:4-4-2; F:2-6-0; G:4-6-0; H:2-8-0; I:2-10-0; J:2-10-4; K:4-6-2; L:2-8-2; M:4-8-2; N:2-10-2; O:4-4 4; P:4-6-4; Q:4-6-4-4; 4-4-6-4; R:4-8-4; S:6-4-4-6 (s1), 6-8-6 s(2); T:4-4-4-4; Mallet & electric, AA:0-4-4-0; CC:0-8-8-0; DD:4-4-4-4; FF:2-6-6-2; GG:4-6-6-4; HC:2-8-8-0.



Wind-tunnel tests shaped silhouette of these Altoona-built streamlined passenger steamers. K4s Class still runs on parts of the PRR high iron.

The latest thing in electric motive power is this beautiful two-unit Westinghouse job, shown leaving Philadelphia for a fast run to Potomac Yard.

No. 5786, typical of PRR's diesel fleet, pulls out of Chicago on Eastbound run.

Narrow-Gage Man

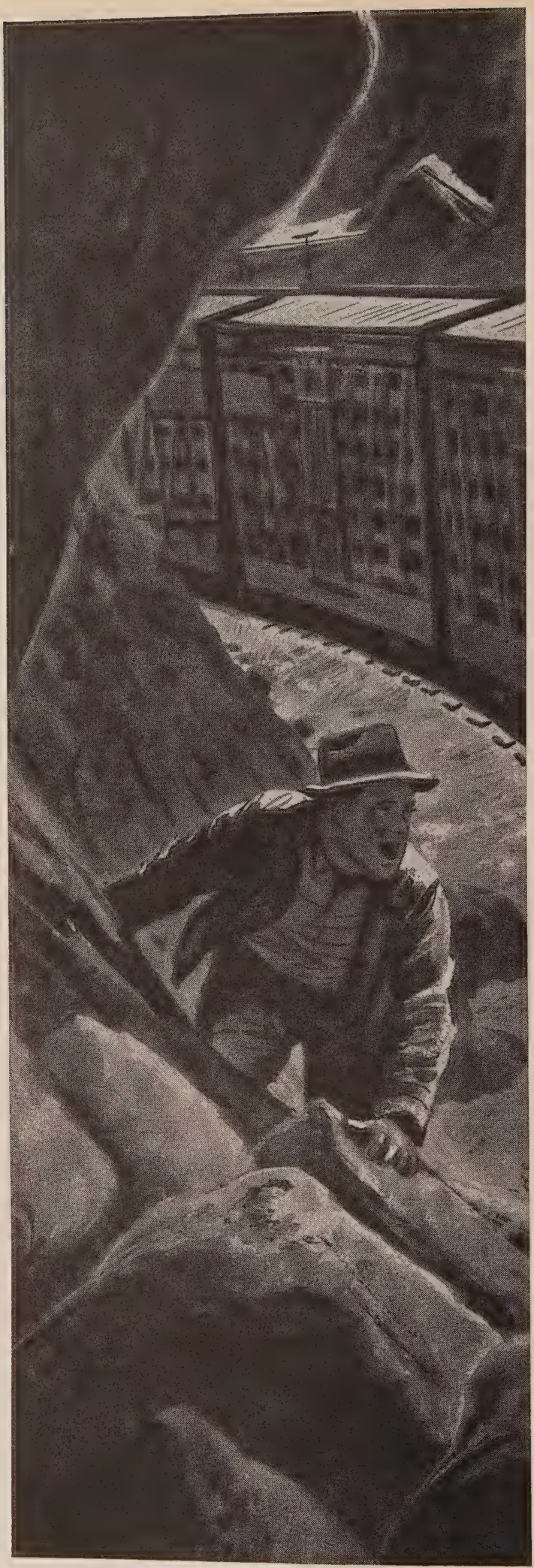
Len Porter Was Scaled Down Like the Pint-Sized Mogul He Drove, But It Wasn't for Nothing They Called Him "Little Giant."

LEN PORTER'S ENGINE, the 151, named the *Buxton,* threaded her seven-car passenger train around the curves in Cebolla canyon, bound for Sapinero. Len Porter, her hogger, was a small, mild-looking man, with red sideburns and a curled mustache. But his red hair gave him away, and most of the men who worked on the Narrow Gage & Western called him the "Little Giant." That didn't displease him any. He was kind of proud of the moniker. Almost as proud as he was of that Mogul of his.

The 151 was an anthracite burner, with water grates, weighing somewhere around twenty-six tons, and she had a diamond stack, forty-five-inch drivers, and an oil headlight shaped like a box. Because of the shortness of her boiler, her bell was mounted on top of the sand

(Continued on page 63)

by GILBERT A. LATHROP



"A standard-gage engine," Big Bill said, "would a kicked that pebble off the rails."

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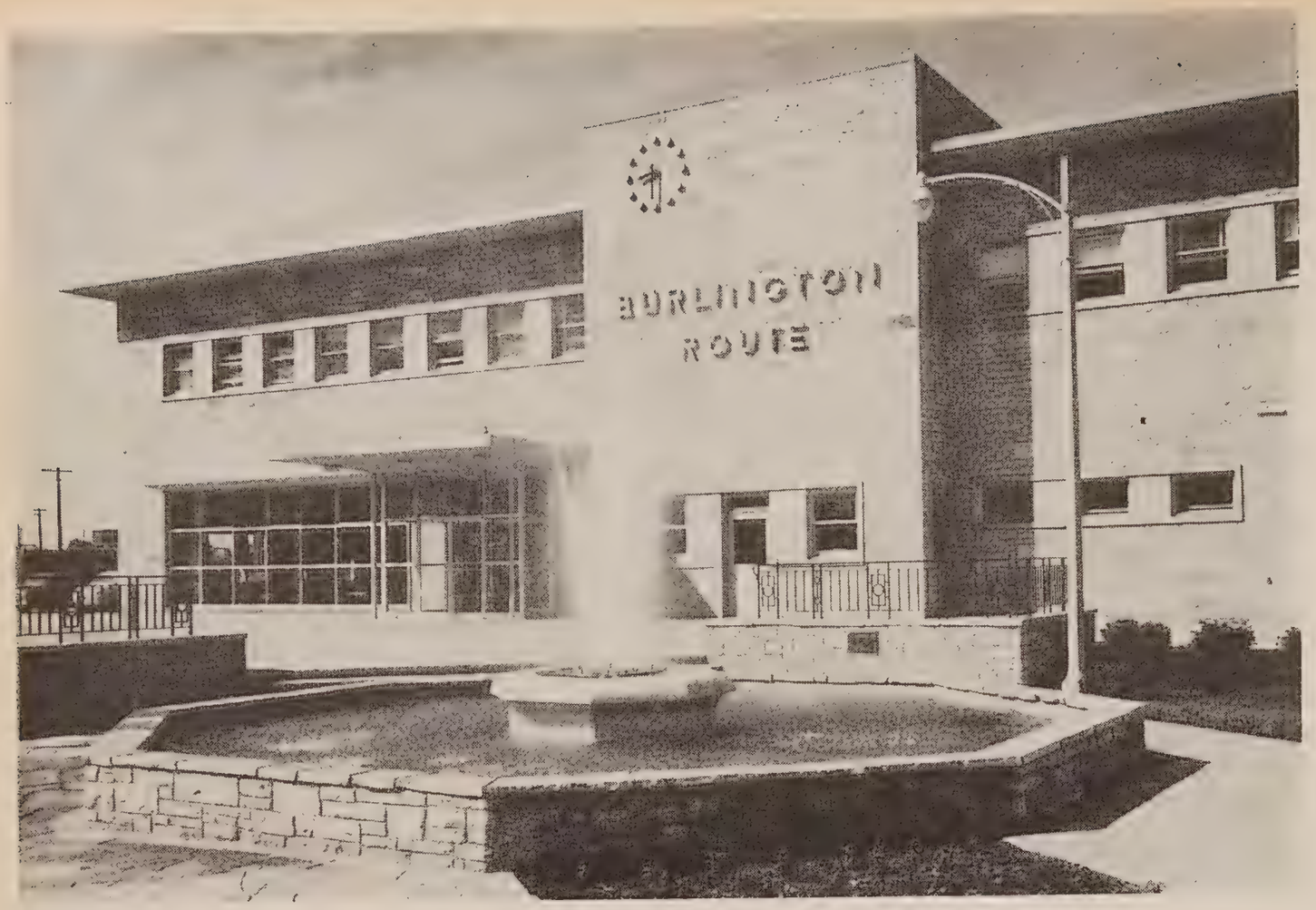


Railroad Gothic gives way to Railroad Modern. The gabled and turreted Burlington station (below) at Ottumwa, Ia., torn down in 1950, was replaced with a new fieldstone-faced structure (above).

A modern gadget used in some big railroad terminals is the high-speed ticketeer machine, which saves time by printing your ticket in a second from a metal matrix.

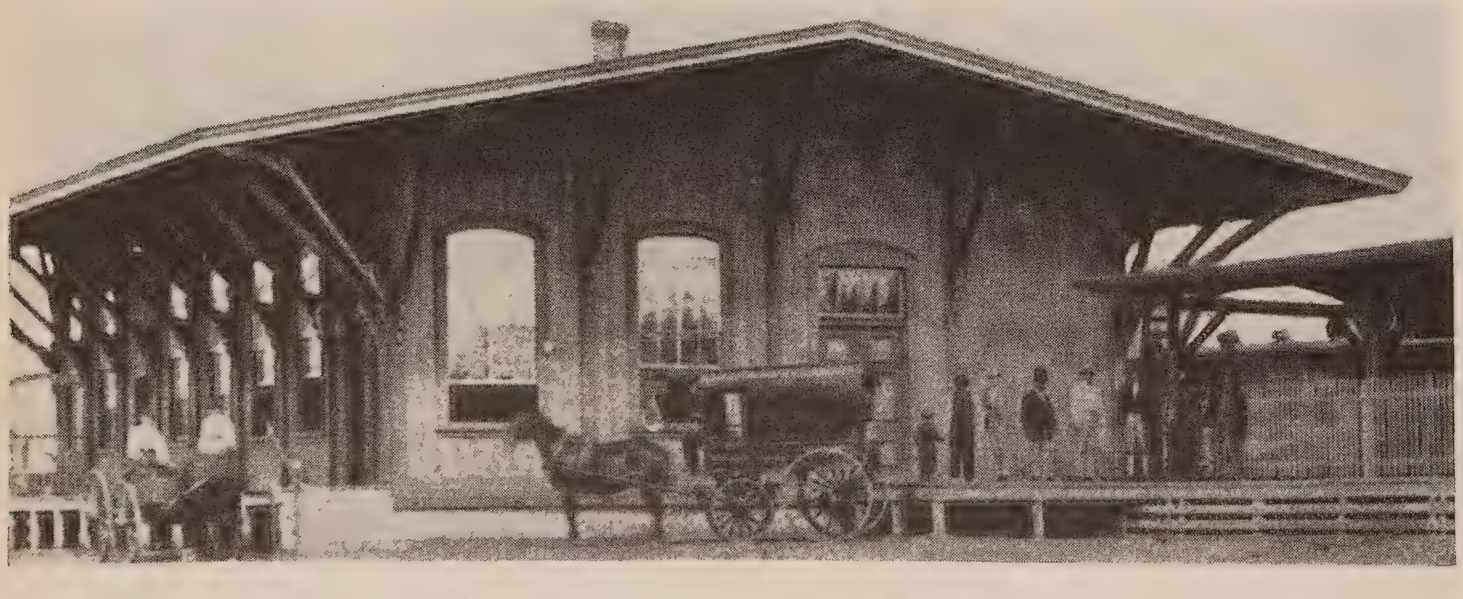
STATIONS NEW AND OLD

The Railway Depot, With Its Hitching Posts, Used to Be the Showplace of the Community, and the Present Trend in Architecture Is to Regain That Early Prestige

STATIONS NEW AND OLD CONTINUED

An ornate medieval clock-tower dominates the home terminal of the Milwaukee Road in Milwaukee, Wis.

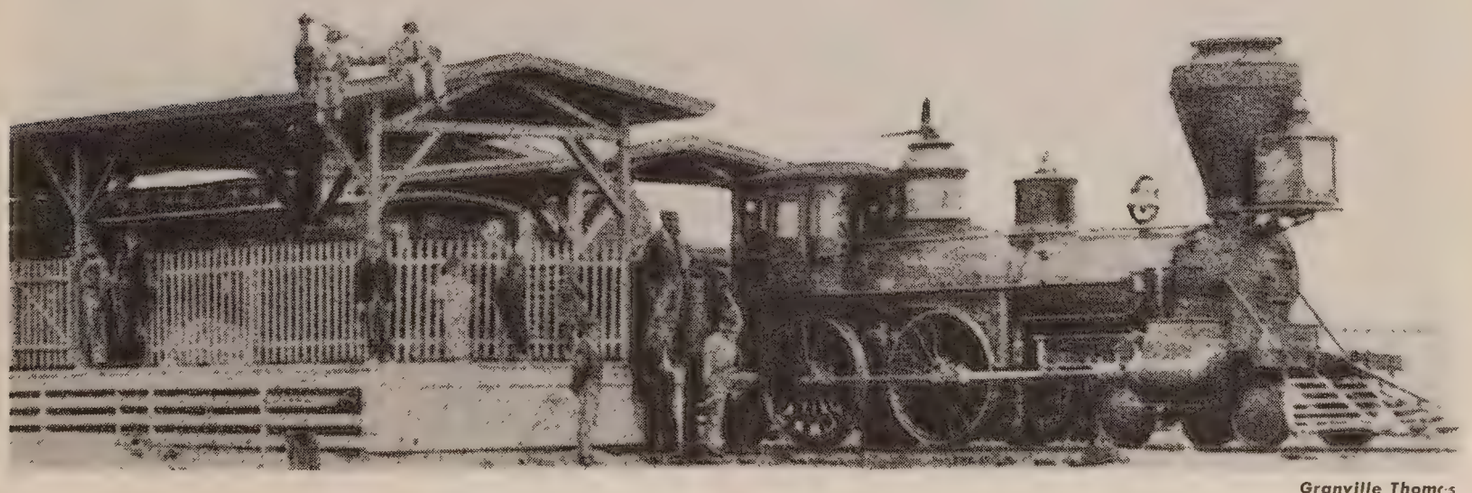
Waiting room at Valley, Nebr., won Myron Hochstetler, Jr., second prize in 1948 Graflex Photo Contest.



The arrival of the afternoon local was once an event of major importance. This group of Millville, N. J.,

C. N. Jones

Victorian gingerbread dangled from the eaves of this quaint Louisville & Nashville depot in Opdyke, Ill., around the turn of the century. Employes apparently found it a good place to escape the sweltering sun.



Granville Thomas

citizens put on their Sunday best one day in 1875 and went down to watch the West Jersey's No. 9 pull in.

STATIONS NEW AND OLD CONTINUED

One of busiest suburban stations on Baltimore & Ohio is this elevated brick building at Silver Spring, Md.

Monumental grandeur of Cincinnati's Union Terminal appeals to the multitudes passing through it every day.

Concrete platform separates Chicago Great Western tracks from new facilities, built in 1951, at Fort Dodge, Ia.

New York's Pennsylvania Station. Glass-roofed train concourse is at right, high-roofed waiting room at center.

Delaware & Hudson's Lake George, N. Y., station gave the famous summer resort a slightly Oriental atmosphere.

L. D. Bodoh, B-C-A News—Illinois Central

Last winter, 1299's smoke plume hovered over Illinois Central's Rockford station, since replaced by a new one.

Spanish-style roofs and an old-fashioned park make Northern Pacific's Fargo, N. D., station a pleasant spot.

Old Great Northern depot at Ephrata, Wash., wasn't much for looks, but it was a fine place for dog or man to loaf while waiting for a train.

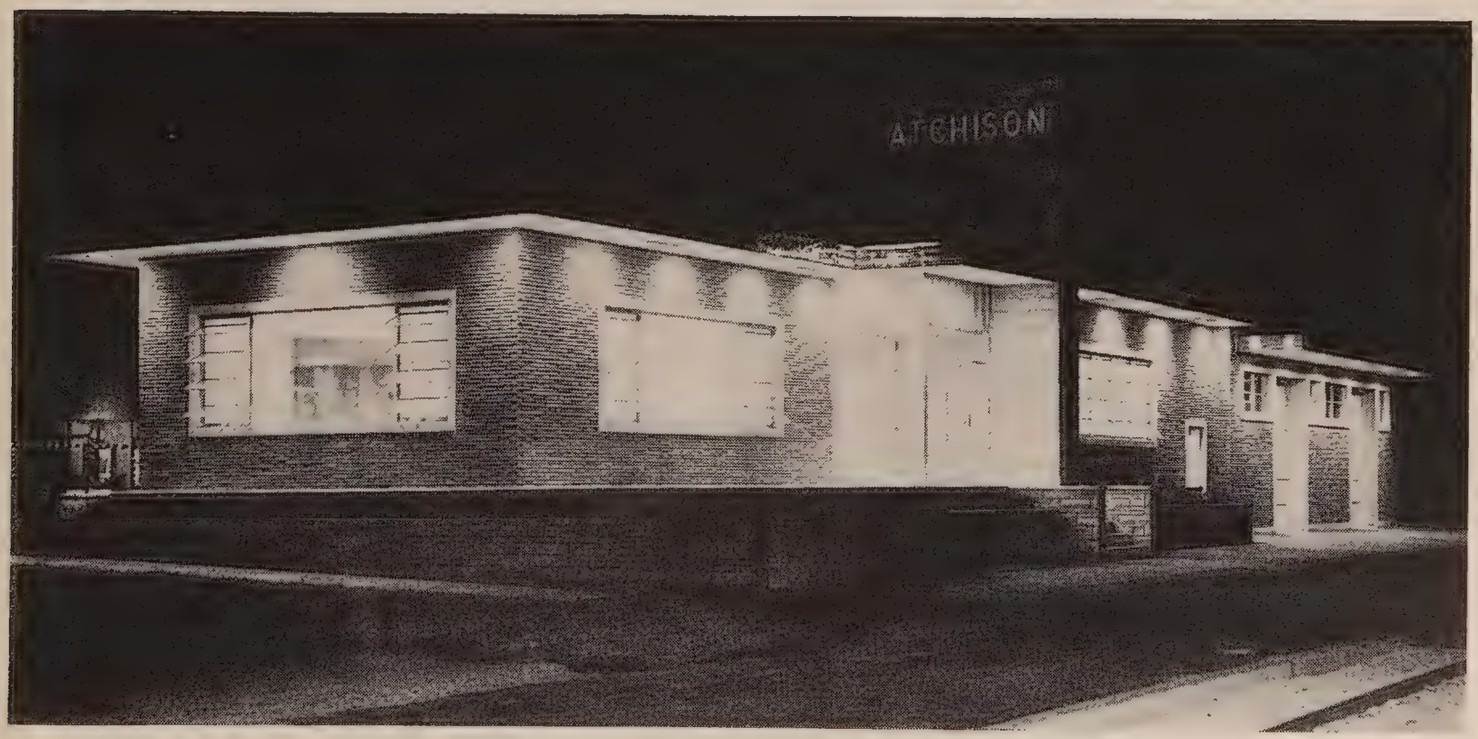
In 1875 Kilbourn, Wis., on the Milwaukee was hub of Wisconsin River traffic. Woodburners like 142 linked country-folk with sightseeing riverboats.

New Orleans' new $57 million Union Passenger Terminal opened last spring. Two stories high, with a parking lot big as a city block, it is the world's only totally air-conditioned station. Seven railroads use it.

Interior of the Burlington's beautiful new station at LaCrosse, Wis., embodies modern emphasis on subdued lighting and soft warm colors.

Designed and built by the Missouri Pacific, Union Station at Atchison, Kan., also serves the Santa Fe, the Rock Island, and the Burlington.

Semaphore offsets low-slung, brick-and-tile contours of the Union Pacific's passenger depot in Nyssa, Ore.



Canadian National ticket offices line concourse in Toronto's Union Station. Information booth flanks column.

INFORMATION BOOTH

ASK BARBARA: Railroad questions are answered here every month by our research expert — as many as space permits. Top priority is given to subjects that seem to be of wide general interest. Address Miss Barbara Kreimer, *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y. No replies will be sent by mail.

1

Question *Could you give me details on the Exposition Flyer locomotive, once identified with the so-called "fastest train in the world?"*

Answer This engine, No. 599 of the Lake Shore & Michigan Southern (now part of the New York Central), was built by Brooks Locomotive Works in 1893. Operated in regular daily service between New York and Chicago, she was assigned to the *Exposition Flyer*. On a stretch near Elkhart, Ind., she ran 10.2 miles in less than six minutes, reaching a speed of 102 miles per hour. This record made her reputation as a fast-run champion and gave the railroad much publicity. The 599 was equipped with driving wheels 72 inches in diameter. She weighed 52 tons.

2 *I do not know the difference between "through" and "way" stations. Please explain. Also what are "stub" and "loop" stations?*

A through station is one built beside the tracks, or over or under them in such a way that trains may pass directly through it in either direction. This arrangement is convenient because it eliminates a lot of switching.

The way station is usually built to straddle the tracks. Often it consists of buildings on either side of the track, connected by a tunnel or passage.

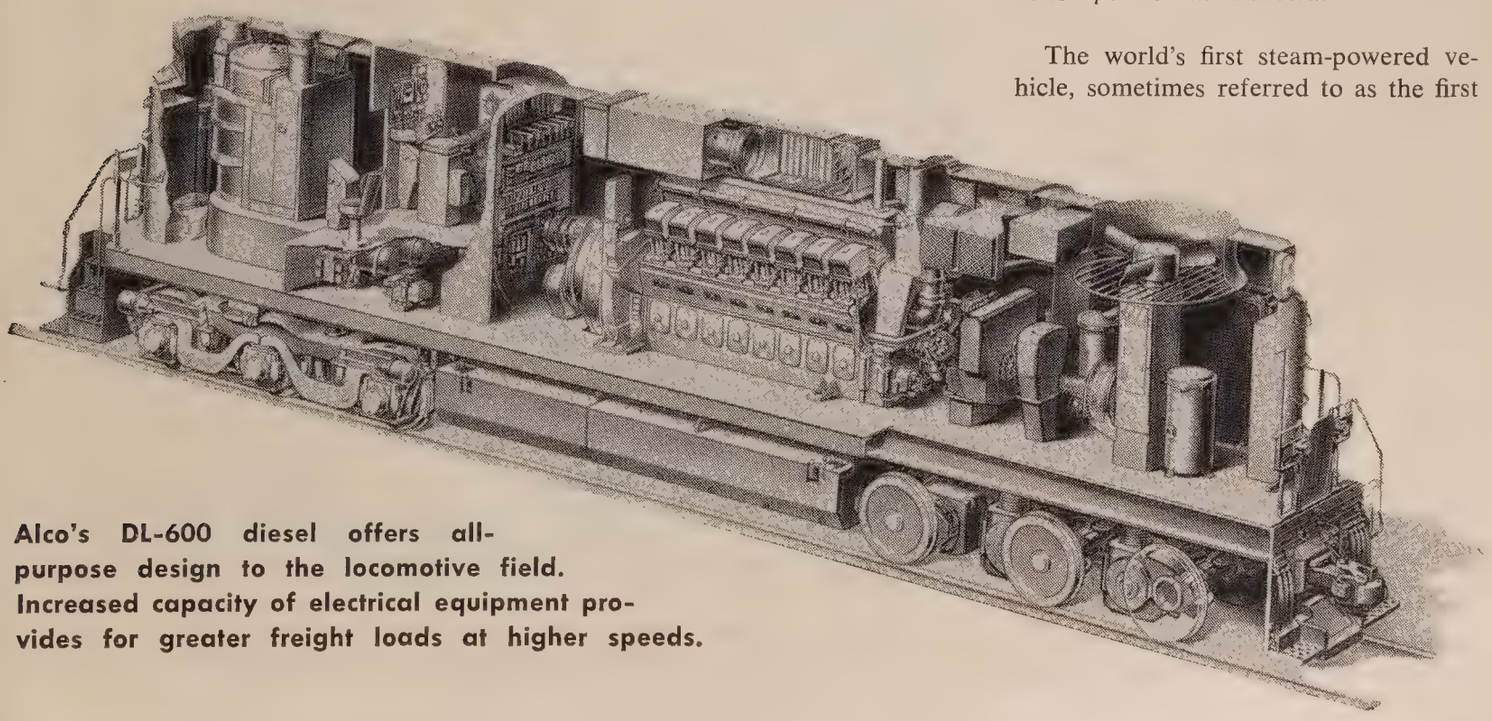
In the stub station, tracks stop abruptly, so that trains must head in, back in, or depart in reverse. The loop station, on the other hand, is designed with a circular track connecting with the main lines. Trains merely proceed along the loop and head directly into their tracks.

3 *I am somewhat familiar with the inside of a steam locomotive, but not with that of a diesel. After seeing the photo and reading the item about Alco's new DL-600 diesel in a recent issue, I would like to know a little about the interior arrangement.*

A schematic view of the DL-600 is shown here. In the front portion is a vertical steam boiler which gives heat for passenger cars. Just behind this is the cab, with ample space for the crew. The main control stand with a throttle lever is placed at the engineer's left, the brake valve is on his right, and the gages and control handles are in front of him. Behind the cab and easily accessible is the engine control panel. The largest portion of the locomotive contains the 16 cylinder, 2250 horsepower V-type diesel engine. Attached to the front of this is the main electric generator, which provides the current for the traction motors in the trucks. The DL-600 boasts a water-cooled turbosupercharger. Placed over the engine is the dynamic braking, or heat dissipator, unit. An auxiliary cooling radiator and a fan are shown at the rear portion. The locomotive is equipped with two side-wheel trucks, each having three motors.

4 *When and where was the world's first steam-powered vehicle operated? When and where was the first such vehicle operated in America?*

The world's first steam-powered vehicle, sometimes referred to as the first



Alco's DL-600 diesel offers all-purpose design to the locomotive field. Increased capacity of electrical equipment provides for greater freight loads at higher speeds.

Famous "lone pine" is unique landmark on Union Pacific line near Cheyenne, Wyo.

locomotive, although it did not pull a load or run on rails, was built by Nicholas J. Cugnot in 1769, and driven by him through the streets of Paris, France. It traveled at the rate of 3 or 4 miles an hour, stopping every 15 minutes to get up steam.

The earliest American vehicle of this type that we know of is mentioned briefly in several Hartford, Conn., history books as having been driven by Dr. Apollos Kinsley in Hartford in 1797, but none of them gives details.

We asked James Brewster, librarian, Connecticut State library, who says: "I have searched old Hartford newspapers of that period, on the supposition that if the event had taken place, it would have been reported, but apparently they printed nothing about it. This does not mean, of course, that Dr. Kinsley did not drive such a machine through the streets of Hartford. It means we have not been able to verify it."

Maybe one of our readers knows something about the case.

5 *What is the story behind the Union Pacific's "lone pine tree?"*

A lodgepole pine grew out of a cleft rock in the desert between Cheyenne and Laramie, Wyo. In 1866, although the tree was in the path of the UP transcontinental line, it was spared by road construction men because of its uniqueness. The road was routed around it. The tree stands by itself in a sandy wilderness where no other foliage seemed able to grow, and was once a center for Indian ceremonial rites. For years engine crews cared for the pine tree. Later the railroad company assumed the responsibility, put a protective fence around it, and placed an iron band on the outside of the rock to prevent further cleavage.

6 *Do any railroads still use "hand-pump" cars?*

The Canadian National, for example, uses them for regular service in its Atlantic Region and for spares in other sections of Canada.

7 *What, if any, are the basic differences in construction between the Talgo train and the experimental Train X of the Chesapeake & Ohio?*

In some ways the two are alike. There is much similarity in their exteriors; the cars are about the same length, width, and height. However, detailed studies of the trains show varying concepts in design.

Train X's wheels are located at the rear of the car, and Talgo's are swung farther back, beneath the couplings. The axles of Train X rotate with their wheels, while Talgo's wheels are not fixed to the axles but rotate on their own bearings. Train X's brakes are of the disc type, pressing against the outside flat surface of the wheel, while Talgo's brakes are designed more like those on automobiles, expanding against the inside of the wheel hub.

The Talgo has electric heating grids in ducts which are interconnected between the units. Each Train X unit has its own individual heating and cooling coil, with no air duct interconnections between units. While Train X has integral pendulum suspension mounting of car and locomotive bodies for higher speed around curves, the Talgo uses vertical springs plus a torque roll stabilizer and lateral truck bars.

In Train X, to pass from one car to the next, the passenger opens doors and moves through short vestibules. The Talgo, in contrast, has no partitions; it offers an unobstructed view of the passenger as he proceeds from car to car.

8 *What does the term "herder" refer to?*

This is the man who couples engines and takes them off, on the arrival and departure of trains.

9 *To what extent does heat cause rails to expand and move seriously out of line?*

Recently a stretch of track on the

Hand-pump cars, now rarely used, had busy days before arrival of rail-motorcars. Canadian National car above is one of few still operating.

Frisco Railroad, near Hallowell, Kan., was affected by a 110-degree temperature. Four feet of rail was thrown out of alignment, because of the resulting expansion. A refrigerator car on a 48-car train was derailed, before this area was blocked off. It is not unusual for forest fires to bring about similar swelling of the rails, and distortion in the trackline.

10 *Is there a compulsory retiring age for men in engine service?*

The Railroad Retirement Act does not include a compulsory age clause. However, some roads have collective bargaining agreements which contain rules specifying an age, generally 70, at which engineers and firemen must retire. It was a Brotherhood agreement, not a law or company rule, that brought about the pensioning of Joseph L. Richardson last May 1. (See page 68.) Mr. Richardson was in active service as an engineer on the Norfolk & Western for 64 years, less thirteen days. As he passed physical tests during this long period of service, he was qualified to stay on the job. He was nearly 83, and still healthy when the N&W signed the Brotherhood agreement which terminated his service.

11 *How did the Nickel Plate Railroad get its name?*

There are many stories about its origin, but probably the name was derived from the sound of its initials. The early name, New York, Chicago, and St. Louis Railroad, was shortened to NYCL, and was called Nickel. As the line was so expensive to build, it was soon dubbed the nickel-plated road.

12 *What is a flying switch?*

This is a difficult operation, sometimes called a "drop" or a "high-daddy," and was devised to save time in switching. Although it is forbidden by company rules, trainmen still resort to it occasionally. Bill Knapke, a retired Southern Pacific conductor, describes the flying switch as follows:

When an eastbound train has a car to leave on a siding which has a switch located at the western end, the engineer stops some distance from the switch, and a brakeman tests the switch-stand to make sure the rails move freely. A second brakeman uncouples the car that is to be set out, "bleeds" the airbrake, and then, hanging onto the stirrup and ladder at the car's front end, gives the engineer a highball.

The engineer moves rapidly forward, and, at the proper speed and distance from the switch, checks momentarily until the car is uncoupled, then speeds ahead, with the car coasting along behind him.

When the engine has passed over the switch, the brakeman waiting there "bends the iron," and the lone car rolls into the siding. Sometimes the engineer backs up and heads in to place the car in the desired position.

The "Dutch drop," another maneuver, can be made only under favorable conditions. It is no trick for amateurs. An eastbound train must pick up a car from a siding, at the west end of which is the switch. The engine is then uncoupled, heads into the siding, couples onto the car, and backs rapidly out. After the head brakeman has uncoupled the car, the engineer moves backward in a westerly direction onto the main track.

When the switch is thrown, the engine reverses her direction, and moves eastward over the switch just before it is opened again. The lone car, which has been coasting westward, rolls over the switch onto the head end of the train. Finally, the engine backs up, and starts eastward with the additional car on the train.

United Press Photo

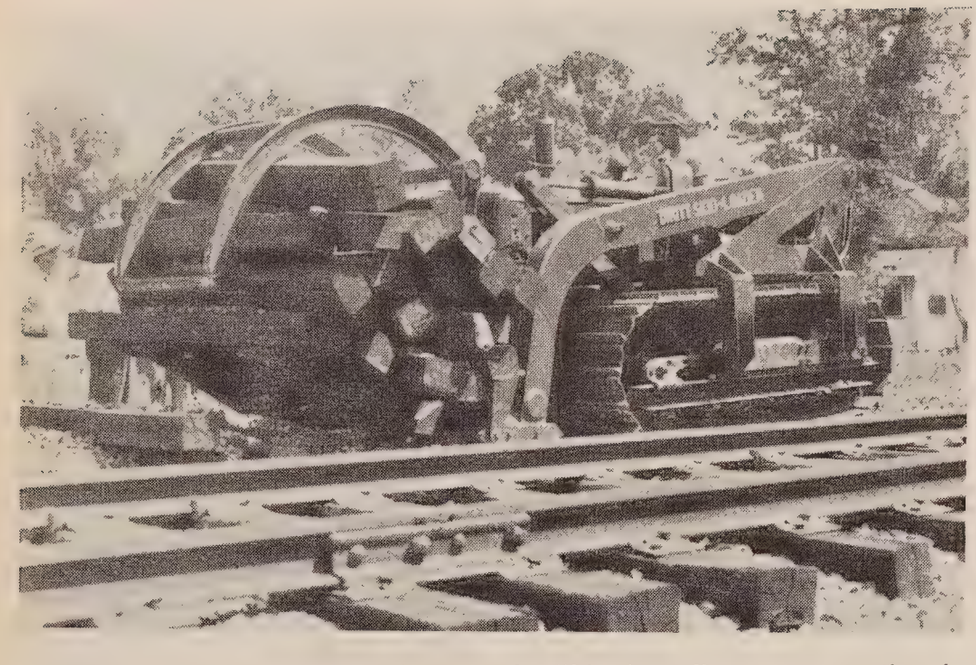
Distortion in track line, caused by high temperature, is known as "sun-kink". These Frisco rails at Hallowell, Kan., buckled from excessive summer heat.

13 *When the tracks of a railroad are torn up, how are the ties removed?*

Often by hand. However, recently the Southern Railway, in an effort to salvage ties along an abandoned right-of-way near Birmingham, Ala., tried a machine generally used in a lumber mill yard which could pick up logs, transport them to a car or truck, and pile them neatly for storage. This equipment, an International TD14A Tractor and Drott Skid-Loader, proved to be a successful answer to the tie-reclaiming problem. Designed with a log handling rack, the skid-loader was able to roll the ties up into an even stack, hold the bundle for banding, and deposit the load nearby. With the help of this unit, the Southern could remove ties at the rate of 1.4 miles per day.

14 *Can you tell me something about the Chesapeake Western Railway which was recently purchased by the Norfolk & Western?*

The Chesapeake Western is a 54-mile stretch in Virginia's Shenandoah Valley. It runs west from its N&W connection at Elkton to Harrisonburg, then south in the Valley to Staunton. An 8-mile branch ex-



Tractor used in lumber yards recently "hired out" to remove ties in abandoned track. Experiment proved speedy and successful operation.

tends from Harrisonburg to Bridgewater.

The CW was built in 1896, when it was planned as a major line from the West Virginia coal fields to tidewater on Chesapeake Bay. It did not become a profitable line. In 1926 it was reorganized under new management. In time the run between Bridgewater and Stokesville was abandoned, and part of the old Valley Railroad between Harrisonburg and Lexington was purchased from the Baltimore & Ohio. In 1938 the CW was bought outright by its general manager. After dropping passenger service, it developed into an efficient carrier serving the farms and industries of Rockingham and Augusta counties. Dieselization came in 1947.

The CW territory has been a tributary to the N&W's Shenandoah Division, and for years most of its freight traffic has been interchanged with the N&W.

15 *Please print a short history of the Pecos Valley Southern.*

Twice scheduled for abandonment, this 40-mile road between Pecos and Toyahvale, Tex., has managed to survive. The PVS was chartered in 1909, started operating in 1911, and was piloted through its early years by Col. W. C. Carwile, a Dallas financier. While it was being built, some of the stockholders who came into the venture were prompted by civic interest rather than by the promise of business investment. In the same spirit, a number of landowners donated ground for the right-of-way inasmuch as the hope of developing commerce in the Madera Valley area was a primary objective.

At first the line served mostly the livestock growers, but later hauled cotton from Balmorhea and Saragosa to connections at Pecos. The little road flourished for a while, and offered regular passenger service in addition to its freight runs. But by 1927, because of highway competition, it began to lose money, and abandonment was considered. However, the Texas & Pacific came to the rescue when they agreed to operate the short line for several years. A second plan to close down the PVS after World War II was shelved when F. M. Reeves & Sons of Pecos and Austin purchased the T&P stock and set up a new management.

The road was then reduced to "Toonerville trolley" proportions. Its rolling stock consisted of one small combination passenger-mail-express motor car, one coach, and two boxcars. The Reeves, nevertheless, set about remodeling it, and adding new rolling stock. By 1952 the PVS was operating on a substantial profit basis. It handled a total of 10,670 carload shipments and employed more than 50 people, to whom it offered benefits comparable to those associated with larger roads.

The company now owns two diesel-electric locomotives, two service cars, one caboose, one water car, and four ballast cars, and leases freight cars from the T&P and the Santa Fe. A recent modern installation is radio-communications service. Although a great deal of PVS traffic includes the hauling of gravel from the Reeves plant, its most profitable freight is cotton.

This comeback has been an inspiration to other short lines. The stubborn little road, in refusing to be abandoned and in building up a service important to local industries, has proved that the short lines of yesterday are not necessarily on their way out.

16 *How do the Pennsy's rail-grinding trains operate?*

The rail-grinding trains are equipped to remove roughness from the rail. PRR has two such trains; one works in the Eastern Region and one in the Central and Western Regions. In high speed territories they run only at night so that train movements won't be impeded. As the grinding operation creates far-reaching sparks, the train, at night, appears to be moving through showers of fire. Often local fire companies have rushed to the scene only to discover this is a deliberate "flame."

These trains were originally built at Altoona works, and are unique in railroading. The cars are converted X-25 boxcars, and in each is a 6-cylinder, diesel-driven generator which powers the grinder motors mounted beneath the car body on special trucks, six motors on each side. Each motor turns an abrasive wheel at about 3,200 revolutions per minute. These wheels are canted so that each grinds one-sixth of the rail, thus following the rail-head's worn contour. As the train has eight cars, each rail is ground by 48 wheels. Generally one passage of the train will make rough, corrugated rail sufficiently smooth.

Engineers are not sure what causes the corrugation, and have found that it occurs in straight track as well as curves, under both heavy and light traffic, and at high and low speed points. When the crests of corrugation get above 8 one-thousandths of an inch, they cause vibrations that are felt in passing cars. These vibrations loosen the track structure and raise maintenance costs.

In addition to corrugation, the grinder

Willard F. Dovel

Looking much like an auto garage, this diesel-house is used by Chesapeake Western.

removes wheel burns and other surface irregularities.

17 *Just exactly how does sand help when applied to locomotive wheels on a slippery track or a steep grade?*

Sand is used to prevent the slippage of engine wheels and create greater friction when pressure is applied. A locomotive must have a certain amount of friction between the driving wheels and the rail, or the wheels will spin. The harder the locomotive presses down on the rail, due to its weight, the greater friction there will be between the wheel and the rail.

Tests have shown that there should be from four to four and a half pounds of weight for each pound of pulling power. When the rail is clean and dry, the friction, or adhesion, between the wheels and the rail is great enough to insure the wheels "sticking," but if the rail is wet, or is coated with film of oil or grease, friction must be increased to keep the wheels from slipping.

The sand, placed before the wheels, must be clean and free of dirt or other matter that would make it cake up and clog the traps and pipes. The particles of sand must have sharp edges so that each grain has a better "bite" between the wheel and the rail. It cannot be too fine or dusty. Otherwise, when discharged from the sandpipe, it would blow off the rail.

Sanding calls for skill and judgment on the engineer's part. If too little sand is used, the wheels will slip and damage the driving-wheel tires. If too much is used, there will be excessive friction, resulting in a damaging grinding action between the wheels and the rail.

The sander is the device used to deliver sand in front of the driving wheels. Attached to the sandbox, it is operated by compressed air and controlled by a valve in the cab. The sand is administered through small pipes.

Running Extra

Details of a head-on collision are wanted by Russell A. Smith, 220-02 101st Ave., Queens Village 29, N. Y. He tells us that the accident occurred around June of 1903 on the Delaware & Hudson near Putnam or Dresden (above Whitehall), N. Y. Who can tell him?

Authenticated News

Engineer here checks sander for even flow before driving wheels. Sand insures friction so wheels will grip rail closely.

Commenting on a recent note in our column about a Stockton Terminal engine, Peter H. Hahn, 17566 San Benito Way, Los Gatos, Calif., says the old locomotive was built in 1922 for the Humboldt Northern Railway, near Eureka. Later it was bought by the Dolbeer & Carson Lumber Co. for operation on its line from Bucksport on Humboldt Bay to the headquarters camp on Elk River. This line, adds Mr. Hahn, was originally built in 1882 as the Bucksport & Elk River. In 1952, he reports, the Pacific Lumber Co. (TPL) brought the logging properties from Dolbeer & Carson Lumber Co., and abandoned the line in 1953. TPL logs the area by truck and carries shipments to its railhead on Yager Creek.

W. J. Mann

Mixed train on Honor Branch of Michigan's old Manistique & North Eastern as she looked in 1899.

Norman Roberts

The morning of January 12th, the *Zephyr* plowed into Blairsden, Calif., eleven miles from Portola.

SIERRA STORM

Within Three Days, the Western Pacific Was Out of Business. We'd Seen Fierce Blizzards Before, but This Was the Worst in the Road's History

***True Tale by* PETER JOSSERAND**

HIGH WIND AND RAIN. And plenty of it. That was the way it began. Three inches of rain in one day, January 11, 1952, driven to a frenzy by seventy-mile-an-hour winds.

We had been having unusually heavy weather ever since the Christmas holidays. A storm of considerable intensity had broken on the 10th, but the weather man said the storm we got the next day was a new one. On top of that, we'd had a couple of earthquakes not long before, the last one a fairly stiff jolt, and for a while all trains had been stopped until maintenance forces could patrol the tracks.

In Sacramento that day, all we got was rain, but up in the mountains, in the "Snow-Belt" where the moisture-laden winds from the Pacific strike the high Sierras, a blizzard was building up. The Sierras are notorious for their vicious, quick-striking storms, with snow sometimes piling up at the rate of a foot

an hour. This one wasn't quick, but it was vicious enough to make up for it.

I'd worked on the Western Pacific since before the rotary plows were sent into action for the first time, and I thought I'd seen about the worst the Mountain had to offer. Feather River Canyon was the trouble spot. The Canyon is a hundred-mile gash in the mountains through which the main line curves northeast between Oroville and Portola toward Salt Lake City. When oldtimers talked about snows eight to ten feet deep on our line between Portola and Keddie, where the North Line runs off to Bieber, I always figured time and imagination had piled on a little extra. I was wrong. What was building up was the worst storm since 1890, nearly a generation before the Western Pacific hauled its first train of revenue freight.

That night when my wife and I went back to the dispatcher's office —at that time she was my stenographer in the night chief's job—I made the rounds for a first-hand survey of conditions on the railroad. Since 2:30 that afternoon rock slides had been coming down in the lower Canyon with irritating regularity. So far all of these had been cleared.

During the day, however, the snow line had dropped to about 1000 feet, the first time I had ever known it to happen. Heavy snow rarely falls below 2500 feet, and usually below 2000 you get rain. But this was no normal snow we were having. The heavy snow in the Canyon, while it tended to stop rock slides, increased the danger of snow slides. One had already come down at Rich Bar, the next station beyond Belden.

"How does it look?" the wife asked when I returned to the chief's office.

"No worse than I expected," I told her. "Number 18, the eastbound Zephyr, is standing at Belden waiting for the Keddie rotary to punch a hole through the snow slide at Rich Bar. Otherwise the main line is open. But I'm afraid we're going to lose the North Line. Eight feet of snow at Norvell now."

Just then the outside door opened, and in walked tall, wiry Tom Hunter, road foreman of engines from Stockton, a pair of arctics in one hand and a great coat slung over his arm.

"The boss says I should catch the Keddie rotary at Oroville Yard," Tom said, "and go up and plow a little snow."

"A lot more than a little," I said, and tossed him a weather report.

"Heavy snow above two thousand, rain below; gale winds in the passes," he read aloud. "Oh, well, it can't be any worse than we've seen in the past. I'm driving to Oroville." He gathered up his gear.

"No rush," I said. "The rotary isn't down to the slide at Rich Bar yet. Number 18 is still sitting at Belden."

"What happened to Eighteen?"

"Rock slides," I said. "Your compatriot, Norman Roberts, is having a rough trip. Slides stopped them between Berry Creek and David. Before that was cleared, one came in at Merlin. Boss made them take water on the cars at Pulga, and a good thing, looks like. Before the first slide was cleared at Merlin, another one came in. When it was finally cleared and Number 18 started moving, one of the crew on the work train discovered a flat wheel on one of the *Zephyr* cars. They couldn't set the car out because there was no room on the train for the passengers, so they limped over to Belden. Norman is down on his back in the snow right now with a ball-and-pean hammer and a cold-chisel trying to smooth up the wheels enough to get into Portola."

"Such is the life of a road foreman of engines," Tom grinned, as

(Continued on page 54)

Norman Roberts

A few hours later, the Portola Division point emerged from beneath the snow, but by then the *Zephyr* was sixteen hours behind schedule.

Horsecars came to Norfolk in the fall of 1870, stayed around for nearly 25 years.

NORFOLK TROLLEY DAYS

She Was a Whizbang of a Railway, and When She Finally Reached the End of the Line They Had to Call Out a Riot Squad to Quiet Her Admirers

BY H. REID

THOSE NEARLY EIGHTY YEARS of street railways in Norfolk, Virginia, were anything but routine. In fact, whenever a monotonous quiet gathered about the tracks, it was more likely to be ominous than anything else. Yet if Norfolk put up with a lot from her trolleys, she gave darned near as good as she got. Back in the horsecar days, patrons tired of companies' going broke. In the steam era, drunks loused up happy times on the beach lines. Near the end of electric operation, owners refused to add any new cars.

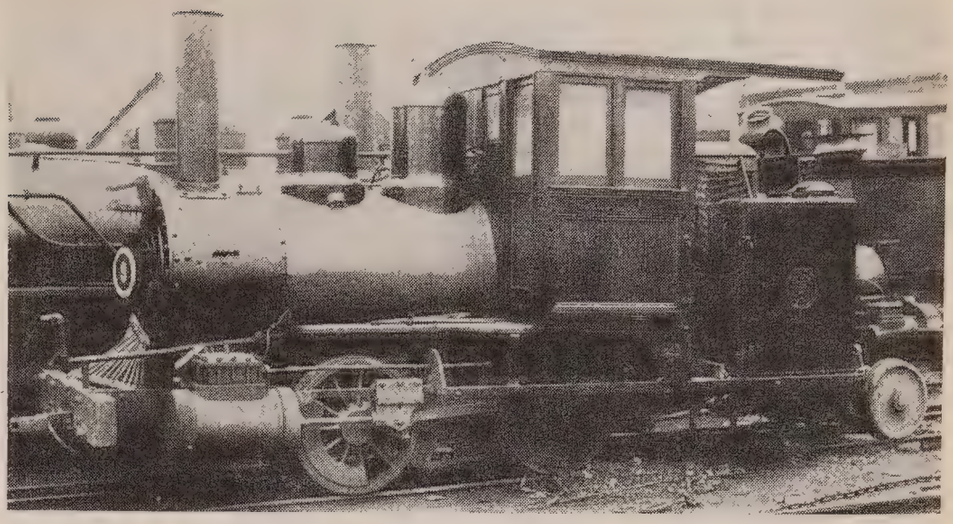
The tracks have been ripped up now. Fuming, chrome-crowned omnibuses whisk over Norfolk's narrow streets, and Norfolk's charming galaxy of trolley cars is merely a memory. No one even thought enough of the cars to preserve one.

It's strange that Norfolk's rail transit wasn't a darling. Its equipment was varied and often rare. It was odd. The system abided by a peculiar 62½-inch gage, chosen by the City Fathers in the early days for the accommodation of dray wagons over channel rails. Local color? Norfolk was loaded with that. Where else would cars run into wa-

terpipe excavations? Where but in Norfolk would a man sue for an eight-cent transfer privilege? Even the last car run in 1948 rolled up a whizbang of a final chapter to Norfolk rail-transit history.

It all began, not long after the Civil War, when on August 12, 1870, five ornate little two-horse cars rumbled around a five-and-a-half-mile course in Norfolk's waterfront section. The maiden run was somewhat overdue. As early as 1866, Norfolk businessmen Thomas J. Corprew, John B. Whitehead, and Cicero Burness had underwritten $100,000 for the project, but a series of legal and financial ambuscades slowed matters.

As conceived, the line was to link dockside establishments with a residential area near an old fair ground on Church Street. City Councilmen thought the project such a good idea that they encouraged Messrs. Corprew, Whitehead, and Burness to build six more miles into the county. Later, the council gave them twenty.



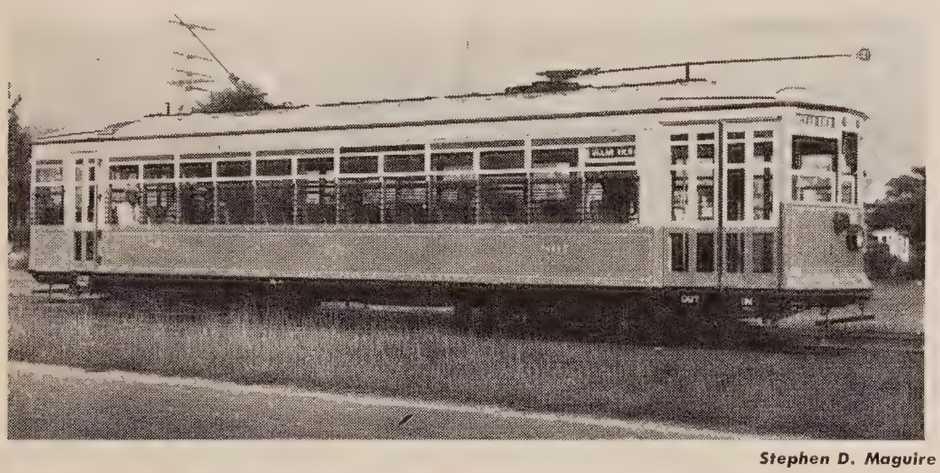
When narrow-gage Ocean View line was steam stronghold in Norfolk, an 0-4-2 like this one in Old South Iron & Equipment yards was mainstay.

Pitifully, the grand scheme fluttered, fizzled out. Newspapers acidly inquired what was holding things up. The mayor feared Yankee funds, rather distasteful in that era, would be brought in. Suspicion of Northern capital even vetoed the initial venture to Vue de l'Eau, a continental name for what later became Ocean View. Other extensions were approved by the City Council, but construction plans always carried clauses permitting municipal usurping of land if cars weren't running over it within eighteen months. The city also slowed things down by haggling over a share in the street railway's take.

By winter, 1869, however, a bleak and ominously cold one, those who

Built for 1907 Jamestown Exposition, No. 2150, at Willoughby loop (above), may have carried Mark Twain.

At the end of the run in South Norfolk, No. 204 gets ready to go back into town. A few days after this picture was taken the line was abandoned.



Stephen D. Maguire

This boomer from Houston, Texas, ended her days on the Ocean View Line. Sides of No. 801 bore VEP's characteristic diamond-shaped insignia.

On last run, riders ripped 407 apart. Riot squad restored order, and No. 629 came to pull the battle-scarred veteran back to the barn.

had money to toss around had warmed up to Norfolk traction, and by December 17, Virginius Freeman, the firm's engineer, had whacked in the first spike. An elaborate ceremony provided big headlines for reporters and bigger heads for celebrants the day after. Somewhat more soberly, track was laid in April, and by August stevedores had trundled five little horsecars off a schooner in from Wilmington, Delaware. A few days later, the Norfolk City Railroad was in business.

Newspapers, foregoing their earlier cynicism toward the project, hoisted cordial greetings, and one writer bubbled effusively, "The cars are of such elegance that every citizen should be justifiably proud." Cars seated twenty, had one entrance, and the fare was seven cents. Upon arrival of five more cars in September, 1870, merchants contracted for advertising space, and the notices were displayed in the cars before the month was spent.

YET, the company rolled to a stop in the spring of 1871. While a check showed a daily haul of eight hundred patrons, only fifty dollars was in the till. "Pecuniary affairs of Norfolk City Railroad are in a sad state," wailed the papers. With red entries mounting steadily on NCR ledgers, there was no choice but to file for bankruptcy. The little cars were stored in the depot where dust and cobwebs soon dulled their gaily painted sides. Not until January, 1872, did they turn a wheel again.

At that time, the company dropped fares to a nickel, and people who had once viewed the cars only as a novelty, began to depend upon them for transportation

Like the track, though, matters soon got a little rough. Only a month after service had been resumed, the first fatal accident occurred—a driver, leaning from a moving car to fix a harness trace, fell and was run over. In October,

1872, a fierce epizootic—that's a horse plague, son—struck thirty-three out of thirty-five head of equine and mule stock. Laborers were soon hired to pull the cars. Then, in January, 1873, when Norfolk's first water pipes were sunk, five cars ran into the holes.

The next month, car operators, having complained for a long while about the company's failure to pay back wages, struck. Once more journalists howled. One commented, "Creditors have descended like buzzards on a dead horse." In thirty days, the labor mess was straightened out, and John Whitehead, the same gentleman who had helped finance the original Norfolk City Railroad, took over. The Norfolk street railway buzzed again in 1875. It never shut down because of economic woes again.

Many of the two-horse cars were rebuilt as single-dray vehicles. Stools were furnished operators, easing their fourteen-hour working day. Back seats were devoted to riders who smoked. In the spring, tidier operators trimmed fare boxes with garlands, and in colder weather, straw was spread on the floors to warm customer's icy feet. All the while, by honest endeavor in transporting, cheaply, people who had places to go, Norfolk City Railroad made money, enough for new cars and tracks.

Meanwhile, competitors sprang up, one of which operated the city's first open car in the Brambleton section in 1877. Before horses could be trained to the route, the company folded. On the far side of Elizabeth River, a standard-gage line opened for business in 1888, and managed to keep going.

No idler, Whitehead, and an old pal, W. H. Taylor, concocted a marriage between an Ocean View hotel project and a new-born Ocean View Railroad. When lawyers finished pulling strings, Norfolk had transportation from one end of the city

(Continued on page 58)

TRANSIT TOPICS

BY STEVE MAGUIRE

Steve

BELIEVE it or not, a brand-new trolley line has just been built by one Gerald Brookins in the Cleveland suburb of North Olmstead, reports George Snyder, 10905 Governor Ave., Cleveland 11, Ohio. Three double-ended Shaker Heights Rapid Transit cars that used to burnish the rails of the Aurora, Elgin & Fox River will operate over the mile or so of track serving a newly-built shopping center. First of the old cars delivered to the property was No. 306.

The new company, known as the Columbia Rapid Transit, is a step in the right direction. More trolleys are needed throughout the country to solve various transit problems. We hope Cleveland readers will keep us informed on the progress of the Brookins experiment.

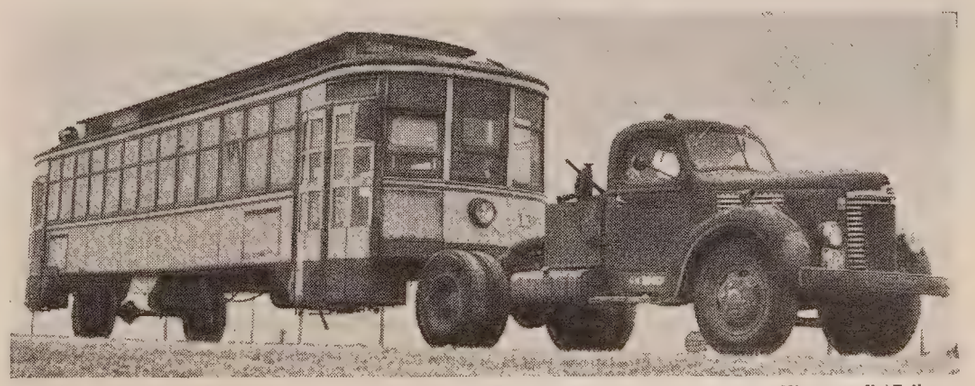
* * *

ANOTHER bit of good news for juice fans was the opening last summer of the 2⅛-mile extension of Boston's Metropolitan Transit Authority route between Orient Heights and Revere Beach, Mass. This line was built on the old right-of-way of the Boston, Revere Beach & Lynn, a narrow-gage railroad that began with steam engines and then, in the 1920's and 1930's, used electric cars. Originally the line ran between Lynn and East Boston, where a ferry connection was made to the downtown area. Delays caused by ferry operation led to the railroad's downfall.

Today, MTA carries passengers between the center of Boston and Revere Beach in one-fourth of the time taken by the old BRB&L electric. The credit for this reconversion goes to Edward Dana, General Manager of the MTA. When the BRB&L gave up the ghost in 1939, its owners apparently failed to realize how important its tracks could be if they were directly connected with Boston.

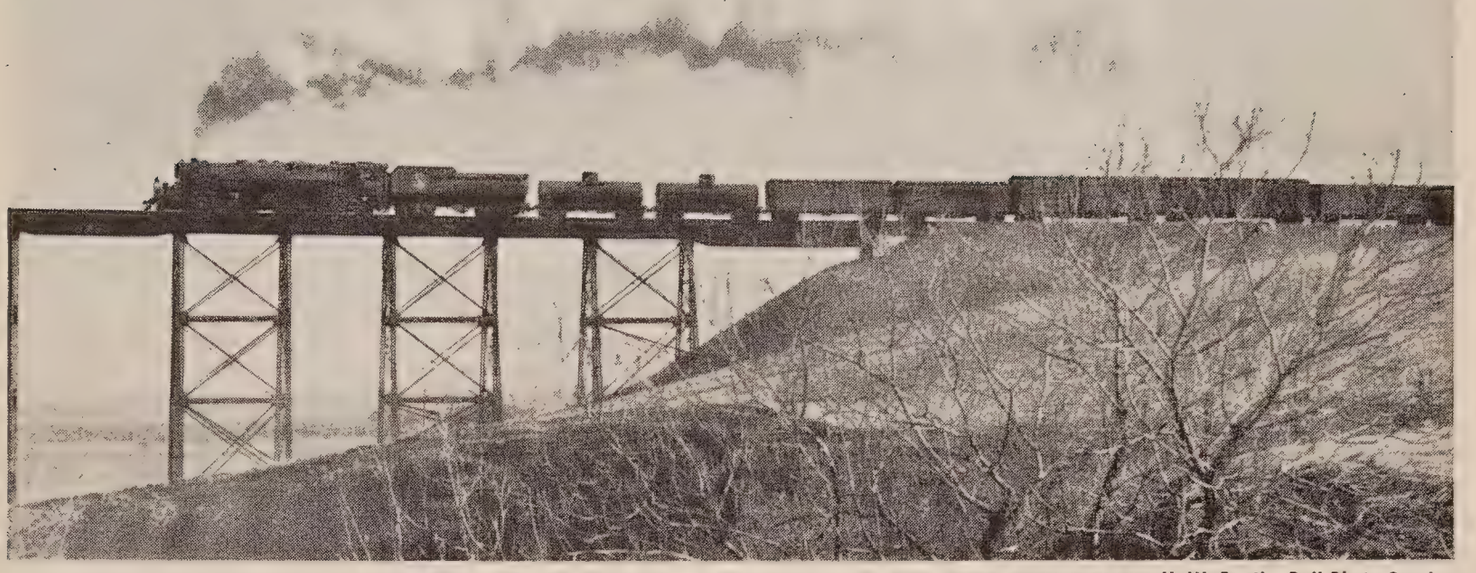
In August '43 Mr. Dana recommended that the MTA buy 104,000 square feet of the old narrow-gage right-of-way from Gladstone Street, East Boston, to

(Continued on page 60)



Minneapolis Tribune

After many years of service, this Minneapolis streetcar set out on a new career. Ready to settle down at last, 1385 will be remodeled as a house.



H. W. Pontin, Rail Photo Service

Steam clouds from this Great Northern freight streak the North Dakota sky as this powerful R-2 2-8-8-2 engine thunders westward toward Minot over the Gassman Coulee Bridge.

TRESTLE AND BRIDGE PIERS

by PAUL N. WHITE

THIS CHAPTER will describe the construction of the upper level stringers for the Howe truss bridge, which spans the lower level track and switch 5, the pier and abutments, which are skewed, and the timber trestle on a curve. Like the "through" girder bridges, described in a previous chapter, the Howe truss will not support the track which will be carried by the stringers. Both these structures must be removed in order to fasten the dust cover of the layout in place. The timber trestle, which will actually support the track, need not, however, be removed.

You will find it to your advantage to stockpile a "lumber yard" of Northeastern's Scale Lumber. First, relocate curve centers M and N, given in the September issue, only this time on the lower level. The center point of curve M is located 37⅛ inches from the East Side and 23$^{3}/_{16}$ inches from the South Side; the center point of curve N is located 19 inches from the North Side and 19½ inches from the South Side. Swing M's arc, starting the arc from the edge of the cork ballast of the diagonal track; then swing N's arc, starting the arc even with the lower level track's tunnel portal. Connect the two arcs with a straight line. This line will now cross the lower level track an inch or so "west" of the switch point of 5's switch. It is not necessary to indicate the Point of Curve (PC) or Point of Tangent (PT), as is shown in Fig. 1. In studying Fig. 1, you'll see how the upper level track swings off a curve at the right, over a bridge abutment, onto a straight piece of track, over a bridge pier, then over the timber trestle on a curve. The Howe truss will occupy the straight length of track between the abutment and pier.

Your first step, then, is to build the bridge abutment (Fig. 2) and the bridge pier (Fig. 3). Study dimensions carefully so that you're fully acquainted with the drawings. The abutment is a strip of ½-inch white pine with a step cut in one edge. If you don't own a circular saw, the raised portion can be built up with a ¼ x ½-inch strip of pine, nailed and glued into place. Cut one end at an 80-degree angle, first measuring and marking it in pencil using a protractor. The bridge pier, which is circular at both ends, can also be shaped up from soft pine with a ¼-inch capping made from plywood or pine. With a little ingenuity, the pier can also be built up from bristol card or a good grade of drawing board. Ours was built in this manner. Both pier and abutment can be covered with building paper to represent masonry or carved with a hand grinder to represent heavy masonry as described in a previous chapter. Locate pier and abutment on the lower level, using Fig. 1 as your guide, and cement in place with a good grade of cabinetmaker's glue.

Next step is to make two track stringers as shown in Fig. 4. Make them out of ¼ x ½-inch strips of pine, and note that one end of each stringer is cut at a 30-degree angle to insure a snug fit at the abutment end. Use a small carpenter's square to project the track centerline up the side of the abutment and pier, in order to establish the centerline on top of the abutment. Now is the time to paint the stringers, with their flat black paint or a wash of flat-back-and-turps. Cement the stringers $^{7}/_{32}$ of an inch

apart to the tops of the pier and abutment.

We now come to the construction of the timber trestle bents. Figs. 5 and 6. Bents 1 to 7 are full bents, while bent 8 is only a half bent. This was inserted—as in prototype construction—to lend support to an overly long stringer. Make bents as shown in Fig. 5. This is full size for HO. The caps, legs, and foundation are all made of 3/16 x 3/16-inch pine, while the sway bracing is 1/8 x 1/32-inch pine stripwood. This drawing has been reproduced full size so that you can use it as a template in constructing the bents. Tear sheet out (or copy drawing on a sheet of tracing paper) and fasten it down on a drawing board with thumb tacks: then lay a sheet of waxed wrapping paper over it. Cut pieces to size and place them over drawing, cementing them together as you go. Place weights on pieces or hold them in place with bank pins. The template may also be used for the half bent, keeping in mind that only half the template is used and that the sway bracing will have to be altered slightly to fit.

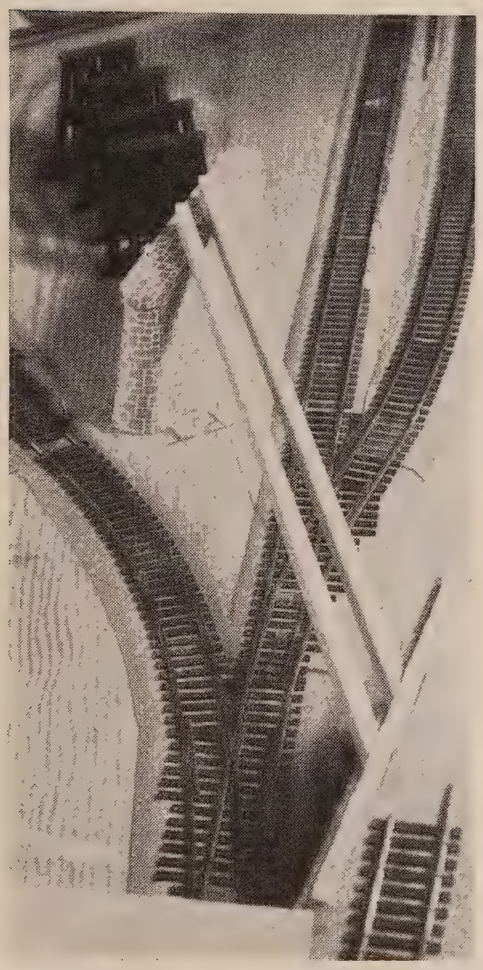
After all bents are built they should be painted before assembling on the layout. Otherwise the job will be a tedious and difficult one. No dimensions are shown on Fig. 1 for locating the bents because individual layouts will vary somewhat. Just bear in mind that they should be spaced equally apart.

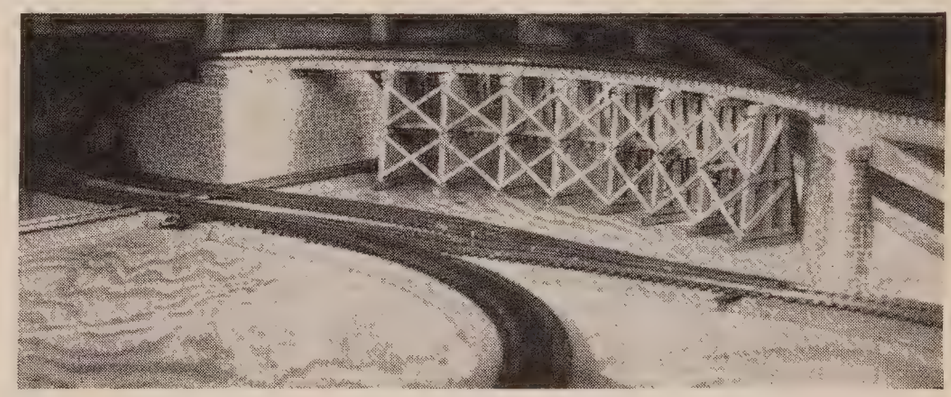
Position bent 1 so that the "north" end of the foundation just touches the edge of the cork ballast of diagonal track on the lower level. Make sure that center of bent is on centerline of arc of curve. Cement in place and reinforce with very small brads or bank pins.

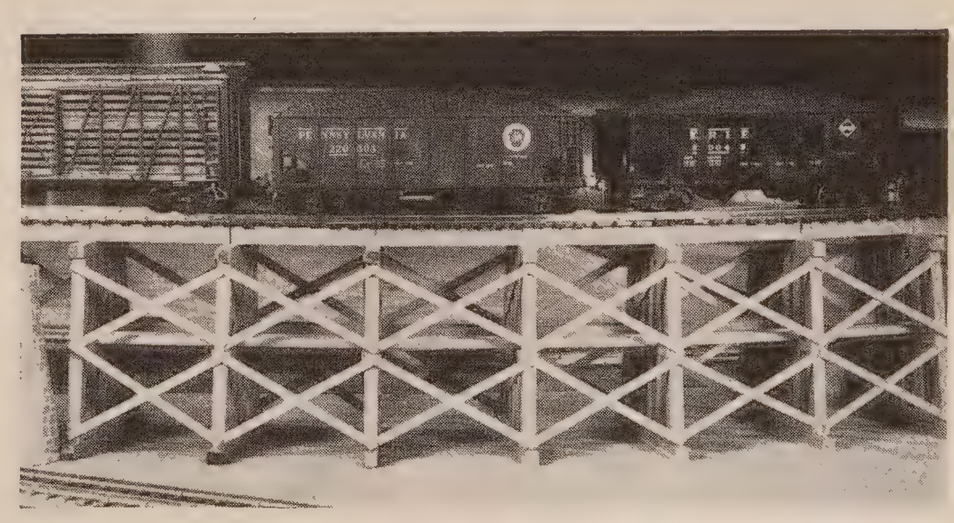
Position bent 7 so the "north" end of the foundation just touches the rounded bottom of the bridge pier, as shown in Fig. 1. Again make sure bent is centered on centerline of tangent track. Locate bents 2, 3, 4, 5 and 6 at equal intervals between 1 and 7. Locate half bent 8. Cement all in place and reinforce with brads. When cement has thoroughly dried, locate the track centerline accurately on top capping-piece of each bent by projecting the centerline up from the base, using a small carpenter's square. Mark centerline on top of capping-piece. Locate guide lines for the stringers 7/32 of an inch on each side of centerline.

Now you can make the trestle stringers (Fig. 6) from 1/4 x 1/4-inch pine strips. Note that the stringers between bent 7 and the pier will need short wood spacers in order to bring them up level with the deeper bridge stringers. These spacers may be made of 1/2-inch lengths of 1/4 x 1/4-inch pine strips and should be cemented to the underside of the trestle stringers. Remember, making stringers is strictly a custom job; and each one must be made individually and cut to fit.

Cement the stringers to the tops of each bent capping-piece, using the guide lines in order to insure that they're 7/16 of an inch apart. The horizontal girts should be inserted next. These are made of 1/8 x 1/16-inch strips. The best way to make them is to use four long pieces of stripwood, cutting them almost through with a razor blade at the points where they pass through the bents. This







Bridge stringers, shown in place (above), rest on pier and abutment. Note that four bents of trestle have been erected. Photos at right show the illusion of great size possible on *Plywood Empire Route's* 4 by 8 layout.

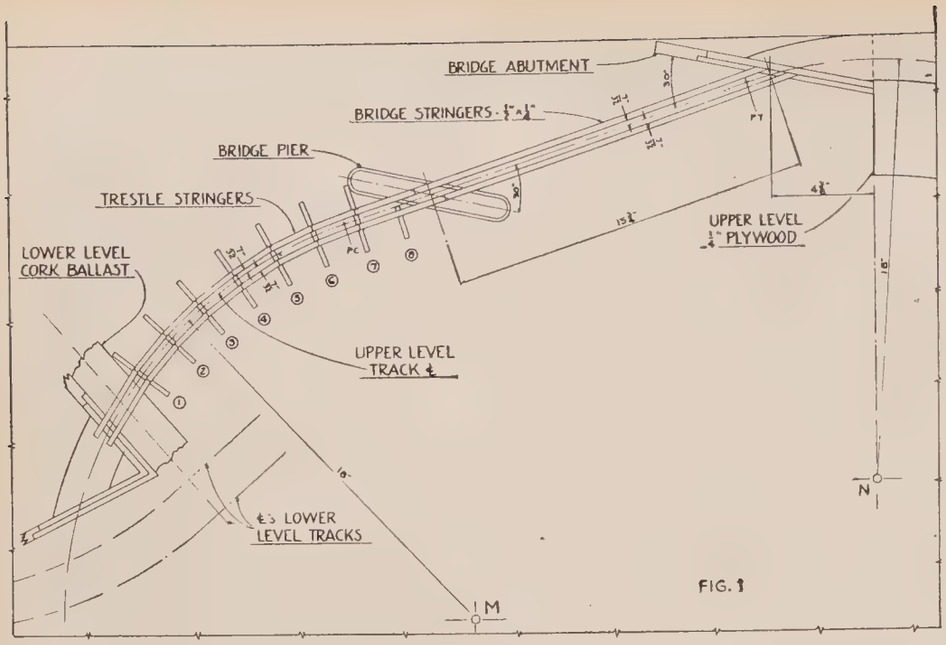


FIG. 1

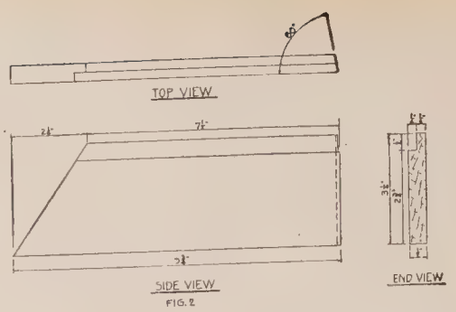


FIG. 2

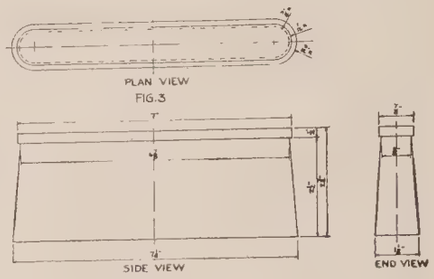


FIG. 3

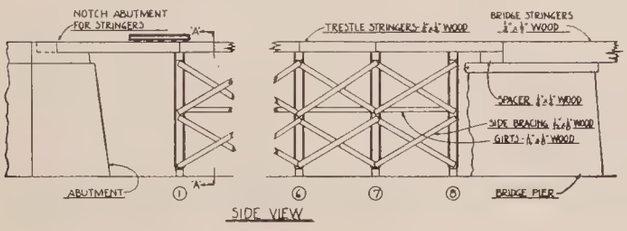
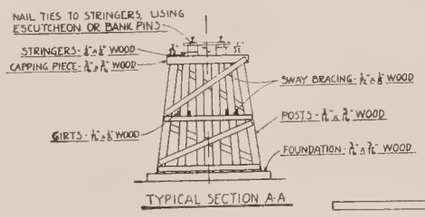


FIG. 6



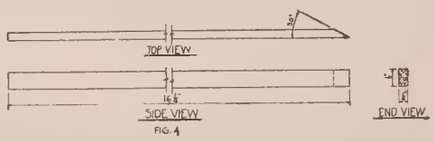


FIG. 4

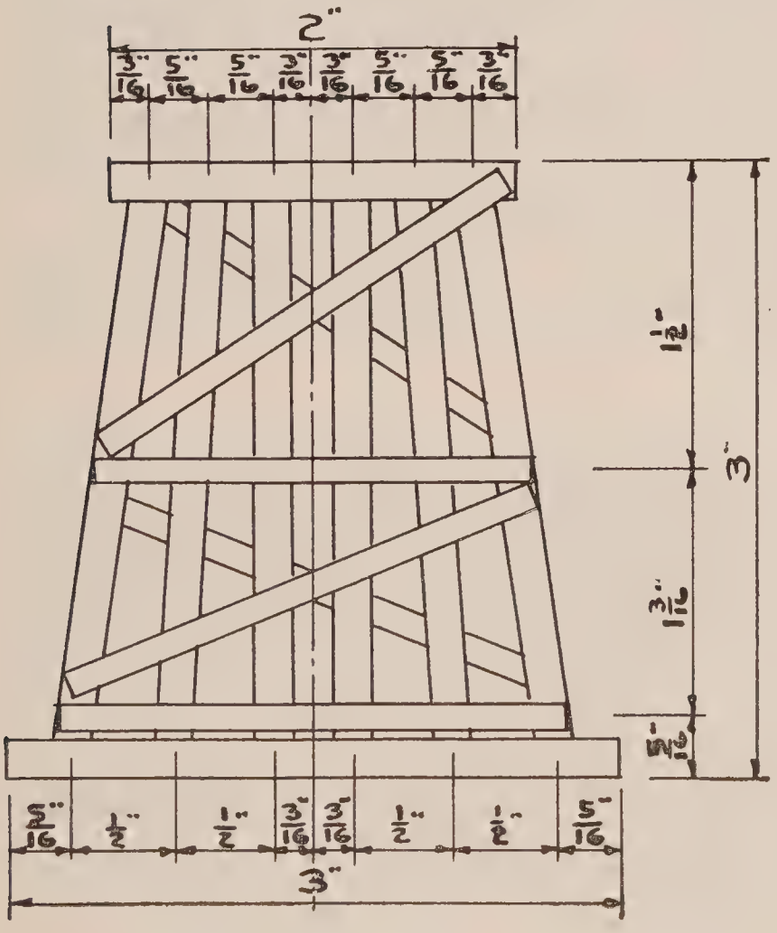


FIG. 5

Full-sized drawing for HO can be used as template in building bents.

allows you to get a sharp and distinct bend at each bent. Cement each to the legs of the bents as they pass through (you can hold them until the cement dries with spring clothes pins).

All side bracing is made of ⅛ x 1/32-inch pine stripwood, cemented into position as shown in Fig. 6. Now finish painting all new wood with flat black, or whatever finish you choose. Track can now be laid down on the stringers and should be secured to the stringers with small brads or rail spikes. If desired, a guard rail can be fastened adjacent to the inside rail on the trestle; and two guard rails may be similarly installed on the bridge.

This layout is now sufficiently completed to permit operation. Therefore, the next two chapters will describe in detail track-sectionalizing and layout wiring—to be followed by the construction of a chair-side remote control panel. Then, if you are building this layout along with us, you too can enjoy "operating as you go" and relieve the tedium now and then by getting out that little Consolidation and breaking-in her new bearings!

(Next month we will do what we can to simplify the subject of wiring your layout.)

PENNSY POWER PARADE

(Continued from page 20)

proved to have nosing propensities at high speed, so a new type came into being, patterned after the New Haven's class of high-speed passenger electrics. This is the famous GG-1, used largely in the fastest passenger service on all of the Pennsy's electrified main line. The older P-5's have been relegated to freight service.

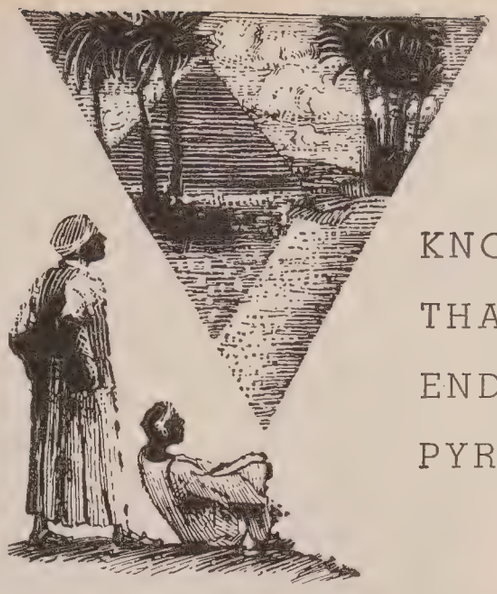
These two classes form the basis of the Pennsy's AC electrified system. If necessary, you could travel from New Haven, Conn., to Harrisburg, Pa., or Washington, D. C., behind a sleek electric locomotive.

Several odd type electrics are now in use, including the Class O, a 4-4-4, and the R, a 4-8-4, in freight service. At present the Pennsy is experimenting with some novel electrics. One is a unit having two double trucks of the conventional 0-4-4-0 arrangement, built by General Electric in 1951 and classed as E-2b. Another, built by Baldwin-Westinghouse the same year, has two six-wheel trucks and is E-2c.

A similar engine, the E-3b, has the same type body but is equipped with three four-wheel trucks. These Westinghouse locomotives are of the ignitron type using AC taken from the overhead wire and converting the current to DC for use in the motors. Thus far, none of these experimental engines has been duplicated, and the Pennsy electric operation is performed largely by the GG-1s and P-5s.

As for diesels, the Pennsy has about all the different types put out by the various builders: Alco, Baldwin, General Motors, General Electric, Lima, and Fairbanks-Morse. These differ very little from their stock counterparts on other roads, and aside from the paint and decoration they look about the same. Some Pennsy electrics and passenger diesels are painted Tuscan red, with gold trim, while the bulk of the juice locomotives are a very dark green which appears black.

Altogether, the road boasts about 3500 locos. Its steamers have gold lettering and trim. ●



KNOWLEDGE THAT HAS ENDURED WITH THE PYRAMIDS

A SECRET METHOD FOR THE MASTERY OF LIFE

WHENCE came the knowledge that built the Pyramids and the mighty Temples of the Pharaohs? Civilization began in the Nile Valley centuries ago. Where did its first builders acquire their astounding wisdom that started man on his upward climb? Beginning with naught they overcame nature's forces and gave the world its first sciences and arts. Did their knowledge come from a race now submerged beneath the sea, or were they touched with Infinite inspiration? From what concealed source came the wisdom that produced such characters as Amenhotep IV, Leonardo da Vinci, Isaac Newton, and a host of others?

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AMENHOTEP IV
FOUNDER OF EGYPT'S MYSTERY SCHOOLS

(Continued from page 45)

he pushed open the door and left.

"See you in the spring," I shot at his departing back, jokingly, but it came close to being a prediction. He didn't get back until February.

THE KEDDIE ROTARY finally punched a hole through the Rich Bar slide and plowed its way into Belden at 2:15 A.M., releasing the Zephyr, then moved on west toward Camp Rodgers. Norman had done a good job of smoothing up the flat wheels on the Zephyr car, and there was no longer any danger of derailment. We had a freight Diesel with a snow plow on the front called at Keddie to double-head the Zephyr into Portola, since the snow was beginning to get deep again.

Just before Number 18 arrived at Keddie, all our wires went out, and the dispatcher lost control of the Traffic Control System between Pulga and Portola.

High on the mountain above Camp Rodgers siding is a bare spot to which the snow cannot cling. The trees and brush on the slopes below hold it up. There had been no trouble there since 1937, when unusually heavy snow proved too much for the growth below. Then, the slide had cleaned off the lower slopes, hitting a train and turning over the engine and several cars. Since 1937, however, the new growth on the lower slopes had held back normal snowfall. We'd been expecting trouble there if the snow-line stayed low. But nothing like what we got.

The main track and siding at Camp Rodgers lie on a shelf blasted out of the side of the mountain, with the pole line hanging below the tracks on the river side. When the growth on the lower slopes gave way, the slide came down, taking out ten spans of wires. Most of it went over the tracks and on into the river, but there was still plenty left on the tracks—a deposit 800 feet long, 150 feet wide, and 35 feet deep, an estimated 155,000 cubic yards of snow, dirt, brush, rock, and trees. Roadmaster Chet Barry figured two days to clear the siding for trains to pass, but his figures didn't take into account the weather. Unfortunately the slide came down just after the rotary plow had passed, blocking it from returning to the heavy snow country.

Union Pacific Railroad

When oldtimers talked about snow that deep, I thought they were kidding.

Nothing short of big bulldozers could handle the mess with any speed. The highway was almost blocked with snow, and getting the dozers there in the storm was a slow and hazardous business. Besides that, there were maintenance forces to round up, line gangs, signal crews, extra gangs, and with our crippled communications it was no easy task.

When Number 18 had picked up the helper engine and was ready to leave, Superintendent Curtis called long distance from Keddie. I told him there were no trains between Keddie and Portola and none would be permitted to enter until the Zephyr was at Portola. Road Foreman Norman Roberts would be strictly "on his own" after he left Keddie. We had lost control of the Traffic Control, and the dispatcher's phone was out.

"There were times when I wasn't sure we'd make it," Norman told

me later. "The rotary had cut a ditch which was filled with new snow. You could see that snow moving in the ditch for fifty yards ahead of the plow and we had to pour on the power to keep from stalling. Then the snow would seem to explode, and the train would lurch ahead into a solid wall of it."

Number 18 arrived at Portola at 10:05 A.M. having lost sixteen hours on their schedule between Oroville and Portola.

With the slide down at Camp Rodgers, the Zephyrs were lined up to detour over the Southern Pacific, via Donner Summit, until our track was open. All freight movements were stopped. To keep the yards from becoming completely blocked, trains were moved out and set on sidings.

SUPERINTENDENT CURTIS made arrangements with the Eastern Division to turn their Portola rotary over to us until we could extricate the Keddie machine from behind the slide. They were plowing out Portola Yard at the time and promised to turn the rotary over to Norman Roberts as soon as they'd finished. There had been relatively light snow east of Portola, and this could be handled with snow-plow engines, or so it was thought.

When Norman started trying to assemble the outfit cars to go with the rotary, he found most of them snowed in. With six feet of snow on the level at Portola, the digging wasn't easy. The wind had increased to eighty miles an hour, and the snow blew in almost faster than they could dig. They got out the cook car and some of the bunk cars, but the wind kept getting stronger and the snow heavier, and the extra oil and water cars just could not be gotten out of the track. But they kept trying. A rotary without complete equipment to make it self-sustaining often gets into trouble in a storm.

Then the weather man said this storm was a big joke, he had the real McCoy coming up the next day, the 13th, and they decided to run the Portola rotary bob-tailed, in the hope of getting it through to Keddie.

But the big storm hit before they got the chance. Winds howled at a hundred miles an hour with heavier snow. It took them all day to get the abbreviated rotary train assembled. The crews were finally called on duty at 10:30 P.M. and got out at 1:00 A.M. on the 14th, the rotary plow ahead and a snow-plow engine dangling behind the caboose, just in case they had to back up. The drifts were mountainous. By the time they got to Clio, seven and one-half miles from Portola, the rotary was out of water. It was three and a half miles to Blairsden, the first water tank. So they had to go back to Portola. Somehow they had to get the rest of the equipment.

But the storm had increased in intensity now to where there was no hope of beating it. The 120-mile-an-hour wind was so full of snow it looked solid. Even the simplest things became major undertakings. Norman told me of seeing four men trying to throw a switch. Two of them were sweeping out the snow from between the points, the other two trying to throw the switch before the snow got in again. It took them two and a half hours to get that switch thrown. The turntable pit filled up as fast as it could be shoveled out.

Down at Camp Rodgers, the work of clearing the slide slowed to a snail's pace.

"I was never so cold and miserable in my life," Division Engineer Elliott told me. "That snow-filled wind tore at your face like a sand blast, and you couldn't see anything. But we knew the snow was building up above us on the mountain, and there wasn't much to hold it. Any minute it might turn loose and bury us."

POWER LINES, telephone lines, houses, trees, and everything else went down before the storm. The huge elms for which Sacramento is famous toppled over, some of them crushing houses. Our lights went out in the office. Instantly we were reduced to confusion. The dispatchers were running around striking matches looking for earphones. With the power off, the loudspeakers

MEN PAST 40

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wouldn't work. Finally the janitor and I located some oil lamps in the basement, but it was several more hours before my wife managed to talk the Utility people into giving us some power.

Such reports as reached us now from the mountains were tinged with distress. Food, fuel, and medical supplies were running low, houses collapsing from the weight of the snow. One could not travel afoot, even on snow shoes. Highways were blocked. Planes could not fly. The railroads were out of business. The Southern Pacific closed down, and our own Zephyr trains were now detoured over the Santa Fe south to Barstow, and then over the Union Pacific to Salt Lake City.

On the morning of the 15th, there came a lull in the storm. The snow continued, but the wind dropped to a mere breeze. Men came poking their heads out of holes and set forth with some hope of getting something done.

Prospects were good for getting the Keddie rotary past Camp Rodgers that day, and, as promised, the dozers cleared the siding for it to move through. Just as everything was in the clear for the movement, the snow above turned loose. Ten more minutes, and the rotary would have got by.

When the roar of the avalanche subsided, from beneath the new slide came the eerie sound of a bulldozer chugging away. Undoubtedly, the driver had been buried. Men rushed frantically to try to dig him out. About that time, he came running from the cook car, having heard the slide. He had gone to get something to eat just before it came in. Thirty hours later when they dug out the dozer, it was still chugging merrily away.

Crippled by the loss of the dozer, the rotary was brought up to assist. The dozers shoved off the top of the slide, which was almost pure snow, and the rotary was to plow off the balance. But the dozers had so packed the snow, running over the top of it, that, when the rotary hit it, the machine reared up, snapping an axle.

They turned another axle in the Sacramento shops and rushed it to Oroville Yard, to be taken to Camp Rodgers on the big hook, which was needed to lift the rotary.

Up at Portola, it took all the day of the 15th to dig out the needed rotary equipment; the plow finally got out of there around 4:00 A.M. on the 16th. They plowed out of the yard through snow nine feet deep on the level and into Keddie at 12:30 A.M. the morning of the 17th, continuing on west. The going was slow, for they had to probe the slides west of Keddie for rocks before hitting them, by order of General Manager Munson, who was taking no chances on wrecking a rotary at this stage. The probing paid off at Rich Bar when they found a snow slide full of rocks, and were turned back toward Portola.

Shortly after midnight, on the morning of the 18th, the siding at Camp Rodgers was again cleared, and the plow got by this time. A bulldozer was sent to clear the rock slide at Rich Bar. When Tom Hunter finally got to Keddie with his rotary, it was put on the North Line. Norman Roberts plowed into Portola at 8:55 P.M. on the 18th, clearing the line for business through the Canyon, for the first time in a week.

It was four more days before the North Line was open. The Great Northern gave us a snow dozer at Bieber, and this was used to plow out from Bieber to Lodgepole. Tom Hunter and his rotary averaged less than a mile an hour between Keddie and Lodgepole. That wasn't bad time considering the snow was seventeen feet deep on the level at Norvell.

"That was a rough journey," Tom told me. "Men take an awful beating on a job like that, and we were all half dead when we got to where we could see clear track ahead. Just a few more yards, and we'd have the job done. I looked down and discovered we were derailed and plowing out across country. The head end was eight feet away from the track. That was the toughest rerailing job of all—just when we were almost through." ●

Books of the Rails

TRUE ADVENTURES OF RAILROADERS, by David P. Morgan, illustrated by W. A. Akin, Jr.; Little, Brown & Co., Boston; 209 pages, $2.75.

DAVID MORGAN'S new book for adolescent boys manages to suggest the glamour and romance of a streamlined railroad age. After reading it, Junior is more likely to want to become an executive vice president than a grease-grimed hogger.

The old stand-bys are here—Casey Jones, Kate Shelley, the *Texas* and the *General,* and "Death Valley Scotty." But the heart of the book lies in the accounts of a race between a plane and a Pennsy E-6, which the train won; the building of Sam Vauclain's epoch-ending *60,000,* Henry Flagler's overseas railway to Key West, Harold L. Hamilton's Electro-Motive which eventually became EMD-GM, and the rehabilitation of Southern Pacific's San Joaquin line after California's 1952 Tehachapi earthquake.

The technical discussions are excellent, and Mr. Morgan's style is generally light and bright, though a trifle condescending. The illustrations, however, are crude.

ARID DOMAIN: The Santa Fe Railway and its Western Land Grants, by William S. Greever; Stanford University Press, Stanford, Calif.; 184 pages, $4.

IN 1866 CONGRESS CHARTERED the Atlantic & Pacific to link Springfield, Mo., with the West Coast. A&P never got

there, but out of its ruins came the Frisco system and the Santa Fe's line between Isletta and Needles. When the AT&SF took over the A&P's obligations, it also acquired its land grants, and *Arid Domain* is a study, about as arid as the subject, of how the railway has been disposing of them ever since.

THE TRAIN THAT NEVER CAME BACK, AND OTHER RAILROAD STORIES, by Freeman H. Hubbard, illustrated by Kurt Wiese, 127 pages; The Bodley Head, London, 7 s., 6 d. (McGraw-Hill Book Co., New York, $2.25).

DESIGNED, we should guess, for ten-year-olds, this book of true stories is as good an introduction to the romance of railroading as you're likely to find anywhere. Besides some famous railroaders, you'll find such lesser-known men as hogger Jim Root, who rescued most of a town's population from a forest fire; chief engineer Ray Morley, who won the Royal Gorge race for the Santa Fe; Bill Rogers, the phantom brakeman; signal-tower operator Joe Oman, whose split-second decision balanced the fate of a passenger train against his own; and yardmaster Herman Keeney, whose ingenuity saved many lives in a flood.

Unfortunately, Mr. Hubbard prevents Jawn Henry from hammering himself to death in the contest with the pneumatic drill, thus reducing the mighty railroader to the level of Superman. But this is a warm, gentle book, with sharply alive characters and crisp, exciting action. The pictures capture its spirit admirably.

NEVER VICTORIOUS, NEVER DEFEATED, by Taylor Caldwell, McGraw-Hill Book Co., New York; 549 pages, $3.95.

TAYLOR CALDWELL'S latest novel, "the romance of a great railroad and a fabulous family," is a big hunk of book designed for those who like their passion respectable and their philosophy confused. Readers who hope to find here the flavor of the high iron or higher finance had better look elsewhere.

The book covers one hundred years of the deWitt family, proprietors of the Interstate Railroad. Actually, it is little more than an excuse for an extended sermon on America's politico-economic past and present, most of which Miss Caldwell disapproves. Her characters are suppposed to illustrate the thesis that "while man is never victorious, he is never completely defeated, and God is as everpresent in the affairs of nations as he is in the affairs of men"—a thesis that the novel never quite succeeds in substantiating. •

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NORFOLK TROLLEYS

(Continued from page 49)

to the other. Motive power for the ten-mile undertaking had to be sturdy, and steam was selected. The first locomotive, a 2-4-2, bore the name *W. H. Taylor,* which surprised no one. A second was named for Whitehead. These forty-two-inch-gage machines, weighing 18,000 pounds each, were assembled at Thomas Godwin's iron works at the harbor's edge. Mr. Godwin, heretofore a marine enginemaker, thoughtfully saw to it that each tender was large enough to hold wood for a whole round trip. Engine cabs, according to the newspapers, were "fashioned of ash, cherry, and walnut, and were ample . . . [enough] not to incommode the engineer and fireman." Three coaches were ordered by the street railway. For narrow-gage carriers, the cars were rather large, being nearly 50 feet long by 10½ feet wide, with seats broad enough to take six average-sized passengers.

Drunks were apparently quite a problem. Not long after Ocean View trains began running, a reporter dryly chronicled, "Last night, a young gentleman, much the worse for liquids, fell off the cars." A month later, readers of a Norfolk daily were informed, "A special train early this morning ran over a man who had gone to sleep on the track near Kelley's Road [Maltby Avenue] and Landing Street. Several of the victim's friends saw him drinking about midnight, and it is generally suspected he was intoxicated before going to sleep."

The Norfolk & Ocean View line changed little until 1893, when it was rebuilt to standard gage. In the spring of 1894, they were hanging electric wires. Equipment for the power plant was difficult to come by, and a Norfolk & Western 0-4-4 was occasionally rented.

IN 1896, a real estate dealer promoted a line west of Ocean View. It was dubbed Norfolk, Willoughby Spit & Old Point Railroad Company, but despite the impressive name, the line wasn't much. Old narrow-gage Norfolk & Virginia Beach coaches, with standard trucks, were hauled by an 0-4-2, New York dummy Number 9, which had originally been a 2-4-2. The locomotive cab burned the first winter, and thereafter ran as an open model. Later, the enginehouse burned too. During the summer of 1898, a Chicago-El 0-4-4, Number 26, arrived. When NWS&OP power broke down, Norfolk & Western loaned a 4-4-0.

The Norfolk & Ocean View finally bought the whole kit and kaboodle, christening the splicing, Norfolk & Ocean View Railway. Steam operation lasted only until electrification was completed, when Number 9 was sold, while the 26 worked specials and rescued electric cars which died when current failed, a common annoyance.

Meanwhile, the Norfolk City Railway, *nee* Railroad, had gained state sanction for electric operation in 1889, and five years later, in 1894, electric cars displaced horsecars. Extensive double-tracking was undertaken, several smaller routes were incorporated, upper city lines consolidated, and, after absorbing Ocean View properties, the name Norfolk Railway & Light Company affixed.

The company's chief competition came from Norfolk & Atlantic Terminal, which goes back on paper to 1900. It was Norfolk's first line to be electrically powered from the beginning. Atlantic Terminal boasted a downtown terminal abounding with cosmopolitan flavor, and the line went to the famous Jamestown Exposition held in 1907.

Toward the end of streetcar operation in Norfolk, Birneys ruled the Riverview line; No. 1472 (above) stopped regularly at the Post Office.

Whatever Atlantic Terminal's punctual shortcomings may have been, it excelled in being amiable. For a dime, AT would tote a ten-pound poke of groceries from one end of the system to the other. An extra nickel would take it across briny Hampton Roads to Old Point Comfort and Newport News. A barrel of beer or oil could be shipped for a quarter, and a ton of ice for eighty cents.

By 1904, Norfolk was veined with a number of systems, predominantly electrically operated, unchallenged until the coming of the motorbus in the Twenties. Norfolk Railway & Light became Norfolk & Portsmouth Traction in 1906, and in 1911 the company gobbled up Atlantic Terminal. A trolleybus was tested, with negative results, in 1921, and a year later, metal tokens replaced paper tickets.

From that time on, trolley line building tapered off. An Ocean View shuttle was lopped off in 1922, and thereafter electric lines in Norfolk were doomed.

Virginia Electric & Power Company—the company's name was changed once more—inveigled the City Council to outlaw private buses in 1925. Ultimately, VEP bought thirty-six buses from private operators, scrapping all but ten. For short, lightly traveled routes, buses proved cheaper to run than streetcars, but motorbuses lagged behind during rush hours. When Norfolk began paving its streets in the Twenties, more buses went into service, releasing Birney streetcars in great numbers.

About this time, fares were six cents, with a transfer privilege for two cents extra. One rider, for some reason, was refused a transfer. So the gentleman took the matter to court, suing the transit people for eight cents. It would make a much better tale if we told you he won, but the case fizzled.

THROUGHOUT THE DEPRESSION, VEP gave it the old college try, offering patrons such benefits as low-rate weekly passes. Scouting Atlantic states for second-hand cars, VEP was ready for World War II and the struggle of moving a population of 275,000 which had doubled in months. Moreover, 50,000 servicemen, mainly sailors, patronized the cars in seeking various forms of entertainment in Norfolk, eight miles from their base. The trip to town was easily accomplished on a sturdy old set of cars in the 1100 series, which sat boldly upright on large trucks. Bounding along on off-street rights-of-way, the cars gently tipped in a front-to-back motion. Other cars on the same track would oscillate from side to side. Albeit, the 1100's won the battle of transportation in Norfolk, for the Naval-Base-line traffic included tremendous numbers of defense workers, too. People rode to work in the 1100's, got around gas rationing by joy-riding in them, brawled in them, went to church in them, made love in them, gambled in them, got uproariously sick in them, but the 1100's gamely went about the chores for which they had been placed on rails. Without them, Norfolk would surely have met a transit Waterloo.

As the war years went on, the Government decreed VEP should hold either power facilities or transportation. VEP chose power, selling the trolleys to a Chicago firm in 1944. A new name, Virginia Transit was affixed.

After the war, people found empty seats in the 1100's once again. Yet, each time the cars ended a tour at the 18th Street barns, they rolled a few miles closer to their doom, a fiery, twisted, ignoble one, for VTC, taken with an all-bus notion, simply lined up old trolleys, when the time came, and applied kerosene and torch. What didn't burn was scooped up and sold to the junkman.

All-bus service drew support from many at Ocean View, site of much of Norfolk's transportation history. Resorters complained of ruptured streetcar service every time it rained in any quantity. Situated below sea level, downtown Norfolk flooded at the slightest excuse, leaving the beach at Ocean View—no joke—marooned! Then, too, VTC displayed no great talent for replacing equipment, overlooking such innovations as PCC's. It wasn't diffi-

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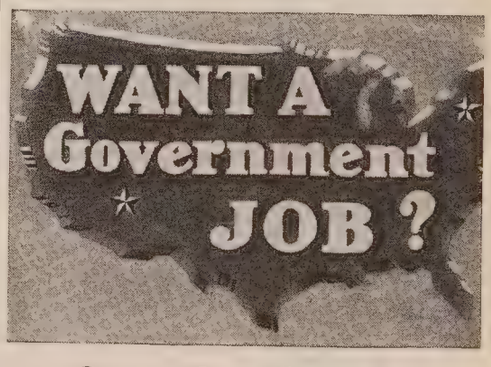

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Leslie R. Ross

Lehigh Valley Transit Company's Southern-built *Liberty Bell* Interurban crossing bridge over Schuylkill River.

cult to sell the City Council on buses. Having seen the same old cars running around the streets for years, the council agreed to the trolleys' demise, hoping to replace the tracks to the beach with a superhighway. The council is still hoping.

Buses ousted streetcars at Willoughby on September 8, 1947. Others lines were converted rapidly, and July 10, 1948, was the final day of operations. As an official celebration, car 503 was burned, no particular reason being offered for the selection of that car.

The last scheduled car to Ocean View—the remaining line—was to be 407, with passengers riding free. But drunks lit into seats, shades, windows, and anything else that could be broken. Finally, a riot squad calmed them down, and 629 pulled the 407 back to the barn. To split a hair, the 629 was the very last car in operation.

Little remains today of Norfolk's once lengthy, if not rapid, rail-transit system. Several parking lots purchased ties for space markers; the sporadic Smithfield Terminal Railroad, in the Virginia ham town, has VTC rail on its less-than-a-mile main line, and trolley fanciers picked up a few souvenirs. But Norfolk soon forgot its trolleys. ●

TRANSIT TOPICS

(Continued from page 49)

the Revere city line for $7,500. Then, two years later, he suggested that the right-of-way into Revere Beach be acquired for $38,000.

While the MTA operators may have been otherwise negligent in reaping the benefits of railway transportation, they showed real foresight in making possible a rapid transit route through territory that would have been hopelessly congested by highway traffic, according to the *Turnout*, monthly organ of the National Railway Historical Society, Boston Chapter.

We have often thought that interurban lines with rights-of-way connecting important business areas could provide a basis for future rapid transit. The MTA has made use of large parking areas, at its stations and terminals, to attract commuters who have been driving their automobiles through dense traffic to and from downtown Boston. One end of the line, Wonderland station, Revere Beach, boasts an 800-car parking lot. In addition, overflow space on Ocean Avenue accommodates many more automobiles. For 61 cents you can park on the MTA and ride to and from downtown Boston, avoiding traffic.

This time Boston has found a practical solution to part of its commuter problems.

* * *

MINNESOTA bade good-bye to its only remaining trolley line last summer, when a trolley of the Twin City Rapid Transit made its farewell run. A crowd witnessed what the Minneapolis *Sunday Tribune* called a "funeral feast."

The management did not exactly cover itself with glory. In about three years, the management got rid of 525 miles of track and 750 or so streetcars that had served faithfully the electric railway which opened on Christmas Eve of 1889.

To our knowledge, the demise of this line leaves only two operating electric

S. D. Maguire

In the Boston area new rapid transit route covers right-of-way of old BRB&L line for most of the distance in its East Boston-Revere Beach run.

railways in Minnesota, both short freight roads. The Northern Pump Co. trackage at Fridley is the last remnant of the Minneapolis, Anoka & Cuyuna Range line, while the Central Warehouse Railway has a switching line in the Twin Cities.

* * *

THE KEY SYSTEM intends to abandon all trans-Bay railway service on its five routes out of Oakland, Calif., reports the *Western Railroader*, and the State Toll Bridge Authority will probably take over the bridge-train operation when and if the Key lines are taken off.

And in the East, we learn that the Fitzgerald brothers of City Lines are buying into the Philadelphia Transit Company in an effort to get control and convert to buses.

* * *

A PACIFIC ELECTRIC private car, No. 1299, (see page 68) took part in the 50th anniversary celebration of the first interurban service to Huntington Beach, Calif. Huntington Beach saw its last PE service July 2, 1950, when the final passenger trip from Los Angeles to Newport and return was made. Since then, trolley wires have come down and freight service was dieselized. As a result, when car 1299 showed up for the fete, it was hauled by a diesel locomotive. The 1299 is the only survivor from a fine group of interurban cars that once ruled the PE interurban empire.

Bill Middleton's story, *Twilight on the Pacific Electric* (Aug. issue), drew this comment from an old-time PE man, Joseph Felix, 208 Pleasant St., Roseville, Calif.:

"The author doesn't know the early days of PE very well. Mr. Huntington's private car, the *Alabama*, did not go out often on the PE. It was too large for the curves and could not make full speed on any track that PE had at the time. Mr. Huntington received his car the same year that traction magnate John I. Beggs, president of the Milwaukee Electric and St. Louis' United Railways, acquired its mate. Both Huntington and Beggs were such good customers of the St. Louis Car Co. that the private cars were presented to them free.

* * *

WEST COAST RAILFANS, both steam and electric, will be interested in a publication, *Pacific Railway Journal*, which was launched recently as the joint project of three fan groups in Southern California, published at 671 S. Coronado St., Los Angeles 57, Calif.

The first issue includes an interesting story of the 1000 series cars of PE. No. 1001, for instance, was converted a few years ago into PE's first and only rail-grinder, No. 00199. Later it was rescued from its rail-grinding status and restored to operation as old wooden 1001. It is now on exhibition in Travel Town at Griffith Park, Los Angeles.

* * *

OUR BRITISH FRIENDS recently celebrated the 150th anniversary of the world's first passenger rail line. This line, the Swansea & Mumbles Railway, was electrified in 1929 and has been giving reliable service ever since.

* * *

ILLINOIS TERMINAL RAILROAD has asked the ICC for permission to give up all passenger service on its many miles of traction lines, with the exception of Granite City's local streetcar lines.

For years the ITRR has been gradually losing interest in its passenger service. They cut down their beautiful new streamlined trains from three to two units and even decommissioned the

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third car of what was in 1948 the pride of the line. Older cars, the 280's, which had served well for 40 years or more, were repainted and put back into operation as replacements.

We hear from Ralston Taylor, 878 West William, Decatur, Ill., that the Brotherhood of Railroad Trainmen knows that "schedule changes made last April were aimed at strengthening the railroad's request for discontinuance of all passenger service. The line set up inconvenient schedules and poor connections in order to discourage train riders so that it would have some excuse for getting rid of its passenger service."

* * *

AN OLD INTERURBAN freight motor has been located at Bogalusa, La., by O. A. Goessl of New Orleans, who says it is used in round-the-clock operation at the Gaylord Paper Mills plant, transporting paper rolls and rejected material from one building to another. For quick loading and unloading, one side of the car has been removed.

The railway line was started in 1928, when two ex-New Orleans trolleys were purchased and reconverted for express service. These were replaced in 1941 by the present express motor, No. 3, which has been used steadily ever since.

Mr. Goessl wasn't sure of the origin of the freight motor but knew it came from around Toledo, Ohio. So we contacted an authority on Toledo traction lines, Police Sgt. Joseph Galloway, and he gave us the facts. This car was built in 1915 by Brill for the Toledo & Western and was operated as No. 80. Then in 1934 the T&W quit and sold this car and other equipment to the Toledo & Indiana which renumbered it 54. After the T&I folded in '39, Gaylord Paper Co. purchased the car.

In 1939 it was used for an unusual fantrip on the T&I. Besides No. 54, the special consisted of two locomotives and three cabooses—quite a mixed train!

S. D. Maguire

Dallas RR & Term. Co.'s streamliner 622 passes Hotel Jefferson in shot taken a few years ago.

* * *

KANSAS CITY PUBLIC SERVICE exemplified the present plight of the transportation industry when it recently asked that it be allowed to abandon its Dodson trolley line *and four bus routes,* with curtailment of services on other lines, we are told by Ralph Cooper, member of Midwest Chapter of NRHS. The company claims that 25 of its 40 routes are losing money.

* * *

LONESOME STREETCAR. A famous old car, the *Kentucky,* of the Cincinnati, Newport & Covington line, now rests on permanent exhibit at the Wm. Behringer Museum in Devou Park, Covington, Ky. This is the last of many trolleys that once roamed the Cincinnati countryside, reports Earl Clark of Covington.

Built in 1892, it was converted into the private car of the company's president. It is still in fine condition, being maintained by the Cincinnati Railway Historical Society for its owner, the City of Covington. •

BENDIGO. Speaking of Birneys, during "Buy Australian Made Week" such a car toured Bendigo, Victoria, with slogans saying "Made in Australia" and "Make This Your Motto Wherever You Trade." Ironically, of nearly 3,000 trams in that country, eight are Birney cars, six of them in Bendigo, and none were built in Australia. But they're in top condition, says the Australian Electric Traction Association's *Electric Traction.*

* * *

RESORT NOTE. William A. Clark, Inlet, N. J., observed his 83rd birthday by recalling that he was the last of the drivers of mule-drawn streetcars in Atlantic City.

Clark drove his first mule-car back in 1887 when he was 16. The car, he recalls, is still in use at Lake of Bays, Ontario, Canada, where it is steam pulled.

From 1854 to 1884 steam trains ran on Atlantic Avenue in Atlantic City, with mule-cars substituted between regularly scheduled trains. In 1884 steam trains were extended to the Longport end of Absecon Island.

Electric trolleys took over in Atlantic City on April 24, 1889, and have operated continuously on the original route ever since, although not as frequently lately. In 1893 electric trolleys replaced the steam trains for the run down to Longport.

"If a car had no conductor," Clark said, "the motorman went inside to collect fares, leaving the car to run herself."

Trolleys were the only means of public transportation there until 1915, when jitneys started to operate. Crosstown buses were introduced in 1928.

* * *

SCALE PLANS. Robert Putney, Eva, Okla., has a lasting interest in Birney cars, especially those which ran in Wichita, Kan. until June '35.

"I have been a trolley fan since earliest childhood," he says. "No doubt growing up in the then trolley-car city of Wichita had most to do with it. I was only 12 when all the remaining trolley lines were abandoned."

Putney wants to know whether there are any Wichita or ex-Wichita fans around who associated themselves closely enough with the old Birneys to obtain detailed scale model plans or the dimensions of the actual cars. Eventually, he hopes to build and operate a miniature trolley system on a gage larger than normal, probably 2½ inches, to show details not feasible with O gage and smaller.

S. D. Maguire

Weed-spraying car GCX 301 is used on New York & Long Branch line at Bradley Beach freight yards. Pipes at front spray overgrown track.

NARROW-GAGE MAN

(Continued from page 25)

dome, and, to keep her fireman from being pitched off when she got to rolling and weaving over the road's thirty-five pound rail, chains extended from the sides of the tender to the cab.

When the Little Giant halted at Sapinero, near the east end of Black Canyon, and got down with his long oiler, he saw Big Bill Brawley, his conductor, coming toward him along the track. The Little Giant didn't care much for the man.

Big Bill had hired out about a month ago, and, because he owned a blue serge uniform with a swallow-tailed coat, the bruiser was put on as a passenger conductor right off the jump. And the Little Giant had got stuck with him. Not that Big Bill didn't know his business, but he was a loud-mouthed, sarcastic buzzard. Ever since he'd started on the NG&W he'd done nothing but poke fun at the home guards and the pigmy size of the engines and box cars. When he wasn't doing that, he was bragging about all the standard-gage pikes he'd worked for, always comparing the narrow-gage unfavorably with them. The Little Giant wondered when in hell he was going back to the standard-gage where he belonged.

Big Bill handed the little hogger some new running orders, and, as though reading the engineer's mind, said, "Sure I'm still workin' here. Aim to stay long enough to get a workin' idea of this flea-sized turkey trail. Then I'll head back to the standard-gage where they got man-sized engines an' cars, an' man-sized men, too."

The Little Giant swallowed his anger. "We figure it takes pretty good men to work over these mountains an' through our canyons."

"Back around Emporia, Kansas, last place I worked, we used engines big enough to hide this plaything of yours in the firebox," snorted Big Bill and headed back to his red-enameled coaches.

The Little Giant was back on his side of the cab by the time Big Bill threw him a highball. He tootled a couple on his peanut-wagon whistle and opened his throttle. Number 1 dove into Black Canyon like a startled ground squirrel into a burrow. The Little Giant set his throttle and reverse lever against the light-water grade and poked his head out his window. He liked the smell of the new, hand-hewn red spruce ties and the dank granite, all blended with choke-cherry blossoms. The bell clanged as the 151 rolled from side to side.

They had run almost two miles along the north wall of the canyon when Len Porter's fireman yelped, "Rocks!" and threw the Little Giant into a frenzy of action. He closed his throttle, horsed his reverse lever to back motion, and set his straight air valve, all at once. But the train

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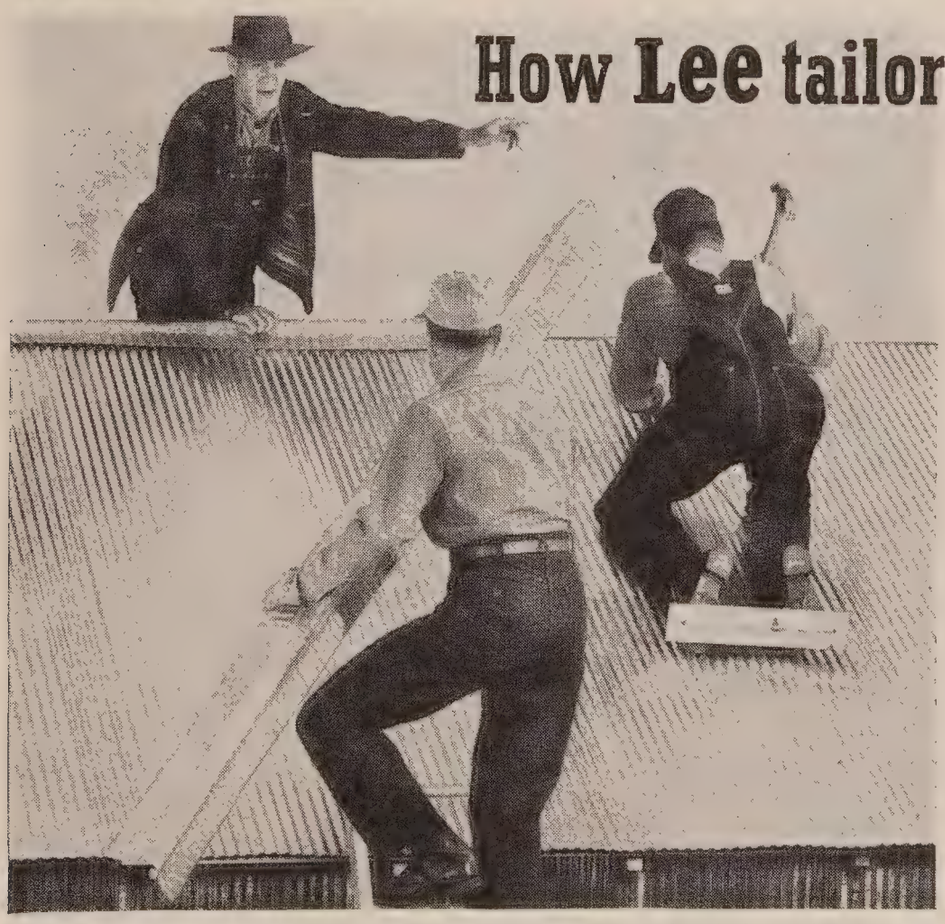

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had too much momentum. His sweeping cow catcher with the iron tongue for link and pin couplings climbed up a chunk of granite the size of a cookstove and the pony trucks followed. The engine slewed viciously to the right, and shuddered to a halt.

"Cripes, Andy," the Little Giant called across to his fireman, "ya didn't give me much lee-way."

"How'n hell could I, on a dog-leg curve like this?"

The Little Giant nodded his head. A fellow couldn't see around corners, for a cinch. He jumped off to survey the damage. On the narrow tow-path between boiler and murmuring river he wormed his way forward. A two-pound native trout leaped from a pool behind a rock and snapped up a two inch long willow fly. The Little Giant worked his way around his smashed cow catcher and shook his head sorrowfully. The pony trucks were on the ties, the rest of the wheels still rode the rails, and, as far as he could tell, the only damage was to a half dozen wooden ribs on the cow catcher.

"A standard-gage engine woulda kicked that pebble off the rails without knowin' it." Big Bill had come from the left hand side of the engine and his voice was filled with disgust.

"This'n didn't," said the Little Giant, "that's for sure."

"Half a dozen husky men could lift her back on the rails," Big Bill went on.

"Take more'n that. Better walk back to Sapinero an' call for the wrecker."

Cursing under his breath, Big Bill reluctantly followed the Little Giant's advice.

Getting the 151 back on the rails had been simple enough after the wrecker arrived. While the wrecking crew set frogs and blocking under the derailed wheels, the coaches were pulled back to Sapinero. A couple of tugs when the wrecker's engine returned, and the 151 was ready for service.

During the whole operation Big Bill went on about "this pea-vine streak of yard-wide rust and her pea-brained home guards," to which none of the others paid any attention.

NUMBER 1 pulled into Cimarron at the west end of Black Canyon three hours late. From Cimarron the NG&W climbed six miles up a four percent grade to the summit of Squaw Hill. All trains had to be broken into sections for the ascent, and today the Little Giant got Number 34, a thirty-ton Baldwin consolidated for his helper. The two pigmy mills would hoist four cars of the train up the four percent, while the hill crew with one engine brought up the remaining three cars. At Squaw summit the two sections would consolidate into one.

Twenty five minutes after arriving in Cimarron the double-header whuffed out of town, both engines spitting wet steam through open cylinder cocks and throwing a black pall of smoke like a fog over the tiny mountain town.

When the train was finally consolidated at Squaw summit, the Little Giant sat on his side of the cab waiting for Big Bill to signal the straight-air brakes safe for the descent of the west side.

In the right side of the gangway, Andy, the fireman, had piled several sizable chunks of anthracite coal to be cracked up at his leisure, in preparation for the drop down the mountain.

When Big Bill finally notified the Little Giant that the brakes were okay, that all the safety chains between the open vestibuled coaches were coupled, and that he and his two brakemen stood ready to give help at the usual one blast of the whistle, the engineer moved slowly forward.

One of the chunks of coal rolled off, went under, and broke the train line between the tender and the head baggage car. The needle on the straight-air gage flopped to zero. The train shoved the 151 forward until the Little Giant stopped it with his water brake. Thanking his lucky stars the train line had broken before they hit the four percent, he clambered from the cab after telling Andy to set the hand brake on the tender.

Big Bill came stomping forward. His Van Dyke beard stuck straight out, and his walrus mustache bristled. When he learned what had happened he painted the air blue with profanity.

The Little Giant was an easy-going bantam, but he'd been listening to the insults and the sarcasm heaped on his railroad by this loud-mouthed conductor for the past month. Now he stepped up close and cocked his head so he could look into the eyes of Big Bill. He waggled a grimy forefinger beneath the large man's nose.

"Let me tell you somethin'," he shouted. "I'm sick an' tired of hearin' ya howl your dumb head off about me an' my railroad. If ya don't like your job, why don't ya get to hell off it? Nobody begged ya to come to work here. Now if ya'll shut your big mouth long enough, I'll tell ya what we can do."

Big Bill batted his eyes in stunned silence. Then he growled, "What?"

"I got a water brake on my engine. You got hand brakes on all your coaches. Ya got two brakemen to help set 'em. Get back there an' line up your men. Tell 'em to set enough binders to hold us to a safe speed. I'll do the pinchin' down on the curves, an' regulate the speed on the straight-aways. If I need more help from you, I'll whistle once. If I want ya to slack off a little, I'll whistle twice, or is all that too deep for your standard gage intelligence?"

Big Bill swallowed his anger with an effort, a touch of grudging admiration in his eyes, and nodded his head in understanding. "I guess we can do it," he said, and hurried back to his train.

"I'll get our air line fixed in Montrose, at the bottom of the hill," the Little Giant shouted after him.

With a train load of passengers all unaware of what was taking place, the Little Giant, assisted by Big Bill and his two brakemen made one of the smoothest runs down the four percent grade on record. While baggage, mail, and express were being unloaded in Mon-

trose, a car man repaired the broken train lines. The rest of the run into Junction City went off without incident.

EASTBOUND Number 2 was a night run between Junction City and Gunnison, the NG&W's eastern terminal, 235 miles away. Running time was twelve hours. Not fast, but back in the 1880's NG&W trains made no great speed, what with having to navigate crooked canyons, climb over steep hills, and buck the uncertainties of a rugged nature.

When he got ready to leave at two o'clock the next morning, the Little Giant checked his oil headlight, made sure that all grease cups on side rods were filled and that his gage cocks were free. The 151 had no water glass. Coupled to seven mixed coaches, a dining car, and Pullmans, the 151 would be pulling almost 125 tons. The coaches weighed seven and a half tons each, but the Pullmans and the dining car were slightly heavier.

The bell cord, attached to a brass gong on the ceiling of the cab and extending back over the tender and through the coaches, was attached by the head brakeman, who also dropped the pin through the link of the couplings and attached the safety chains between head coach and tender.

The Little Giant was right on time as his 151 whoofed through her diamond stack up the short tangent below Isinglass Point shortly after entering Black Canyon. The Mogul was running like a sewing machine. Gray dawn hung over the eastern rim of Blue Mesa, a couple thousand feet higher than the crooked gorge. A light spring frost was in the air. Down in the gangway, Andy was carefully sprinkling coal over his white-hot fire, so that the needle on the gage would stand at 130, maximum steam pressure.

Helgamites, with which the waters of the Gunnison River abounded, were undergoing their yearly transformation into willow flies, graceful, two-inch long, orange-colored insects with transparent wings. The native trout would gorge themselves

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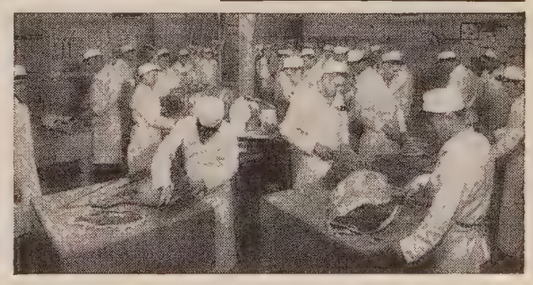

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on these bugs for the next couple of weeks. But this morning, countless thousands of the willow flies, chilled by the light frost, had crawled to the still warm rails where they were massed solidly.

The first the Little Giant knew of it was when the rhythmic exhausts of the 151 exploded into a chattering roar. Side rods complained as the drivers lost all their traction. As he slammed his throttle shut and began pumping at his sander lever, a stench filled the cab which caused him to gag. In spite of the stench, he tried to pick up his drivers on two streams of solid sand three times before he realized it was impossible.

The Little Giant was just whistling back a flagman when Big Bill grunted into his side of the cab. The conductor got one good whiff, turned green where his face showed through the whiskers, and began to gag.

"What'n hell did you get into?" he choked.

"Willow flies," the Little Giant explained. "They'll have to be swept off the rails with brooms before we can go on."

Instead of the usual burst of sarcasm about the railroad and its men, Big Bill scratched at the side of his head. "I'll see if I can find a couple back in the coaches," he said and unloaded, oil lantern dangling from his right arm.

They spent thirty minutes sweeping the insects off the rails. The other side of Isinglass Point where the hot afternoon sun of the day before had not shone was free of the winged hordes. On the way back to the 151 Big Bill suddenly broke the silence.

"If I hadn't seen it with my own eyes, I'd never believed it."

"You'll see a lot of funny things on this pea-vine railroad if ya just stick around."

"One more round trip," said Big Bill, "and I'll be headin' back to the standard gage where I'll sure have some tall tales to tell."

WHEN Big Bill came over with their running orders the next trip, he almost smiled as he handed them to the engineer. The weather was enough to make a man want to sing. A perfect June day, with a hot sun breathing new life into the alpine vegetation and song birds calling incessantly in the bright air.

"Great weather," said the conductor.

Great Northern gives corsages to all women passengers on the *Empire Builder* during the Yuletide season.

"Sure is," agreed the Little Giant.

"Hadn't ought to anything happen this trip."

"Never can tell," grinned the Little Giant. "We got kind of a temperamental railroad up here. An' even nature ain't dependable."

But it seemed he was going to be wrong. They went into Cimarron with everything running perfectly. Too perfectly in fact. Andy cast the first gloom over it when he interrupted the Little Giant's oiling around by pointing toward the summit of Squaw Mountain and remarking, "The old girl's wearin' a bonnet today."

The engineer looked. Andy was right. Only the "bonnet" was an ominous mass of brown-black clouds, the kind the Little Giant had long since grown to respect. Even as he watched, he saw a bolt of lightning lick hungrily toward the scrub oak below, and heard the roll of distant thunder.

Big Bill came walking up and halted beside the pair. He eyed with concern the cloud mass above Squaw Mountain.

"Cloudburst," he said, "hittin' Squaw gulch. We cross the gulch on a fifty foot long wooden bridge half a mile above town," said the Little Giant.

By the time he finished, all of them could see the storm clouds spilling their contents into the head of the gulch. Jagged flashes of lightning danced across the ominous sky and clapping bursts of thunder echoed down into Black Canyon.

Big Bill swore under his breath. Then he rushed over to the depot agent who was just unloading the last of an express shipment. "How many cars of coal have ya got at the roundhouse?" he demanded.

"Four. Why?" said the agent.

Big Bill made no reply. Instead he shouted to the head brakeman who was standing near the door to the depot: "Cut off our engine, quick!"

Big Bill raced ahead and threw the stub switch leading to the upper yards and the roundhouse. By the time he had it over, the Little Giant was in the cab. He couldn't figure what the conductor intended doing, but recognized in the man's actions a definite plan. When the brakeman gave him a go-ahead signal, the engineer opened his throttle, and the little Mogul danced forward.

Big Bill swung himself on top of the cow catcher, there being no pilot step, and rode thus all the way to the roundhouse where four ten-ton cars loaded with company coal sat on a spur where the contents could be conveniently shoveled into engine tenders by hand. As they approached, the conductor unloaded, stooped, and lifted the heavy coupling tongue and guided it into the casting on the first coal car. He dropped a pin through the link in the end, then raced back to the cab.

"Will your engine shove four loads up the four percent?" he yelled.

"Three is the most she'll handle," returned the Little Giant.

Big Bill raced back and snatched the pin behind the third car. Then he gave the engineer a violent back-

up signal and jumped up so he was seated on the dead wood at the end.

Big Bill's plans were beginning to make sense to the Little Giant. And as they did so, the engineer smiled with genuine admiration for the big bruiser. The standard gage man was a railroader, despite all his contempt for the narrow gage. He'd demonstrated that when he let the train down Squaw Mountain with hand brakes the last trip. Now he was showing his ability to grab things by the horns and shake them out of an emergency.

This would be a race against a rushing, twelve foot wall of boulder and tree-filled water. If they could beat the flood to the short, wooden bridge half a mile above town and anchor it with the weight of the three loads of coal, they might save it. Otherwise, the sullen tide would leave nothing but a gaping hole where the bridge had been.

The Little Giant was forced to slide his drivers to keep from hitting the head end of his train when he backed on the main. By the time they were stopped and Big Bill had the switch lined for the main, the long reverse lever was in the front corner, the throttle was open, and the engineer was pumping at his sander lever. The 151 nudged the loads forward, scolding them with muttered exhausts.

THIS was one day when the Little Giant did not favor his engine. Although she complained at such harsh treatment, she performed like a thoroughbred and smashed the three heavy cars up the four percent, straining every bolt and rivet in her carcass.

A hundred yards from the bridge they saw the wall of water surging viciously toward the trestle. Just as the head coal car moved out on the structure the flood struck it. By the time the weight of the three cars rested on the trestle the water was over the top and half way up the wheels. The little cars quivered and rocked at the force, and the movement was transmitted back into the cab of the 151.

Big Bill had dropped off just before the car he rode rolled onto the bridge. Now he pulled himself into the cab and moved up behind the Little Giant. "Think she'll hold?" he asked.

The engineer shook his head doubtfully. The flash flood lasted less than five minutes. Almost as quickly as it arose it subsided. The muddy water pulled itself away from the wheels, then from the top of the bridge. And after a short time it was only a babbling creek below.

Suddenly Big Bill clapped the engineer a hearty wallop on the back. "Damn, Giant," he roared gleefully, "we done it! If I hadn't had an artist runnin' this little mill, it woulda been just too bad for all of us."

"If you hadn't done some nice brain work, there would be no bridge for us to run over today," argued the Little Giant.

Big Bill shrugged and changed the subject. "Back 'em off an' see if she stands solid," he commanded.

The Little Giant moved his reverse lever, and the cars slowly rolled backward. The bridge was solid as it was before the cloudburst had descended.

As they rolled slowly back toward Cimarron the Little Giant suddenly blurted, "I hate to see ya leave here, Bill."

"Leave?" asked Big Bill indignantly. "I've made up my mind to move in here with the rest of you narrow-gage heads an' become a home guard. This kind of railroadin' keeps a man right on his toes, an' I like it. How about us two narrow-gage heads shakin' hands, an' to hell with the standard gage." ●

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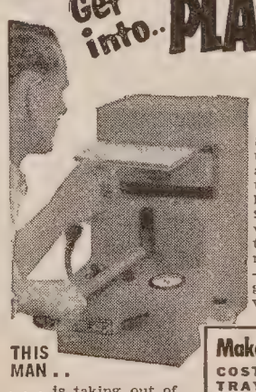

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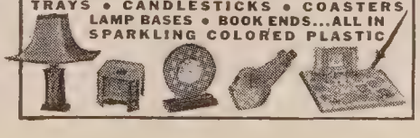

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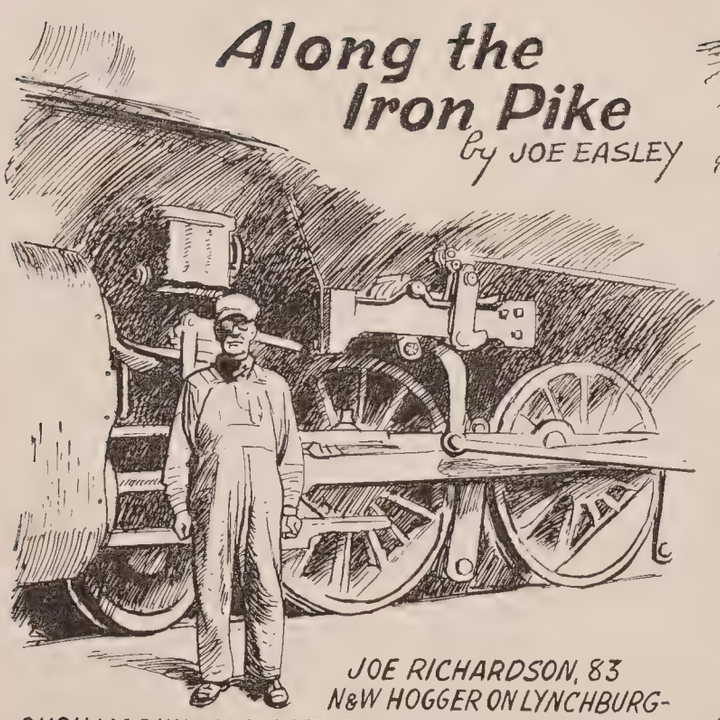
Along the Iron Pike

by JOE EASLEY

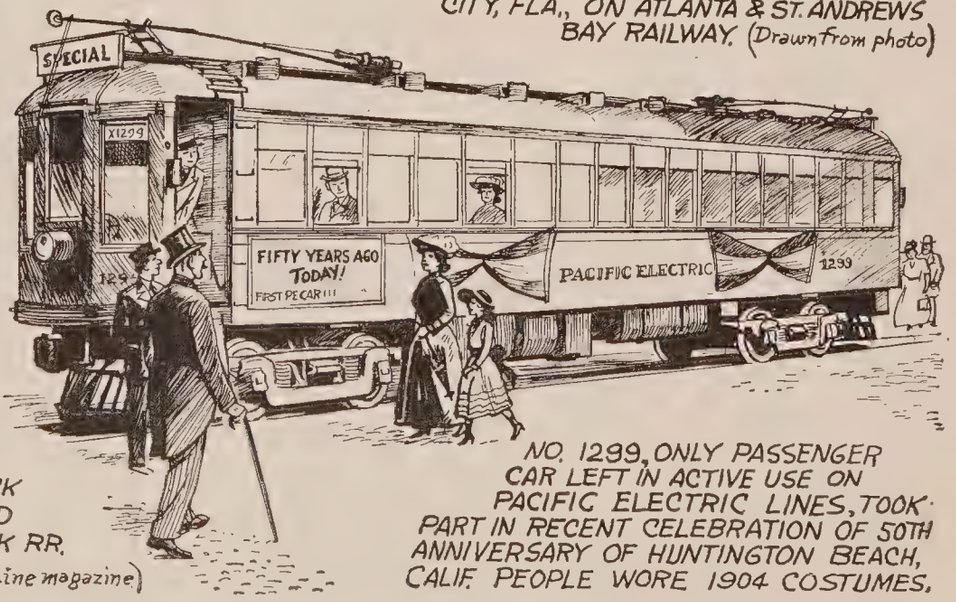


JOE RICHARDSON, 83 N&W HOGGER ON LYNCHBURG-DURHAM RUN, HAS JUST RETIRED AFTER BEING IN CONTINOUS ENGINE SERVICE SINCE MAY 13, 1890 HASN'T LOST A DAY FOR ILLNESS IN 43 YEARS IS THIS A WORLD RECORD? (from R.B. Carneal, Durham, N.C.)

WORLD'S FIRST PASSENGER STATION MAY BE SEEN TODAY AT CROWN STREET, LIVERPOOL, ENGLAND, ORIGINAL TERMINUS OF LIVERPOOL & MANCHESTER RY., LATER USED AS FREIGHT DEPOT. (Drawn from photo by Cyril R. Rawson in British Railways Magazine.)

WOOD-BURNING LOCO IN 1909 AT PANAMA CITY, FLA., ON ATLANTA & ST. ANDREWS BAY RAILWAY. (Drawn from photo)

INDIAN CHIEF CHARLIE SOLOMON OF MALICEIT TRIBE IN NEW BRUNSWICK IS REGULARLY EMPLOYED AS BANGOR & AROOSTOOK RR. CARPENTER. (from BAR Main Line magazine)



NO. 1299, ONLY PASSENGER CAR LEFT IN ACTIVE USE ON PACIFIC ELECTRIC LINES, TOOK PART IN RECENT CELEBRATION OF 50TH ANNIVERSARY OF HUNTINGTON BEACH, CALIF. PEOPLE WORE 1904 COSTUMES.

MAIL CAR

(Continued from page 9)

enders, the engines did not use the turntable.

"One day our foreman hired a hard-looking bozo who called himself 'Railroad Jack.' The newcomer wore no hat, no socks, no shoes. His pants were held up by a one-strap suspender fastened in back with a ten-penny nail. Jack was filthy, but he went to work at the pit, stripping down the old girls. If he ever took a bath or washed his shirt, you wouldn't know it.

"The rest of us were disgusted. We warned Jack that if he didn't clean himself, we'd do it for him. The following Monday he breezed into the shops spic and span, with a haircut and shave. But by Wednesday he was dirty again.

"At length we could stand it no longer. We got permission to clean out the lye tank. That afternoon after work, we tackled the bum, stripped him naked, and dumped him into the tank. Then we scrubbed his body with soap and water, and dug up some clean clothes for him to put on. Jack took it all good-naturedly. He smiled and said good-bye. We last saw him walking the ties—out of town." •

GERMANY'S national railway system, despite World War II damages that amounted to millions of dollars, now ranks among Europe's finest railroads, reports Cpl. Jack Appel, US 51210169, Service Co., 60th Inf. Regt., 9th Inf. Div., APO 176, c/o PM, New York.

"Modern rolling stock," he writes, "including steam, diesel and electric locomotives, has been put into operation, and most of the bombed stations are being rebuilt. At the same time, Germany's aged narrow-gage lines are still functioning with their dinky third-class coaches and stubby steam locomotives." •

DISLIKES of Dwight A. Smith, Jr., RFD 1, Suncook, N. H., include true tales, fiction, and poems. "Although streetcar features don't appeal to me personally," he adds, "they should be continued for the benefit of juice fans. It is my belief that nearly all of the scale model fans buy model magazines, as I do, and for that reason I think that model articles in *Railroad* are a waste of space. Diesel locomotive rosters do not interest me, and your photos should show more originality. Finally, I don't like the price of *Railroad* nor some of your ads." The rest of the magazine apparently meets with Mr. Smith's approval. •

FAVORITE department of Tal Morehead, retired SP switchman, Box 543, Novato, Calif., is *Sunny Side of the Track*. Tal submits this one:

A passenger train was derailed on the edge of a small town. After getting the dispatcher on a wire, the conductor notified his passengers that they'd be stuck there till the next day. The town had no hotel, and the train had no sleeping car.

"Where can I sleep?" a girl asked.

The skipper considered. "Maybe you could sleep with the station agent."

"Sir!" retorted the girl, flushing scarlet. "I happen to be a lady."

"So is the station agent." •

BOOMER LORE may leave James E. Davies "flat," as he stated in a recent issue, but it attracts an army of readers, both railroaders and fans. Our mail on this subject was heavy. Space permits only a few excerpts.

"Mr. Davies seems to have made his only contact with the boomers through reading fiction," comments a Jersey Central engineer, Warren B. Crater, 270 W. Colfax Ave., Roselle Park, N. J. "During the second World War I was glad to get new firemen who were boomers instead of draft dodgers."

R. G. Nugent, 243 Main St., Dansville, N. Y.: "I agree with your editorial policy about boomers. It stands to reason that men with experience on several roads were likely to find, sooner or later, better ways of doing their jobs. Many a home guard who was promoted because of what he'd learned about railroading from reading books was lost when faced with a problem the books didn't cover.

"My own knowledge of boomers is first-hand. I worked for the B&O, the Erie, and the Lackawanna, first in a track gang covering many divisions, then as an extra telegraph operator, agent, teletype operator, CTC operator, terminal ticket agent, crew caller, tower man, and so on.

"After working half the stations on a division, I still never found two agents who handled their duties the same way, so each position was new to me for various reasons. The broad experience helped me a lot when I had my own agency and did what I thought were the fastest, easiest, and best ways of doing things—methods acquired from the various agents I relieved."

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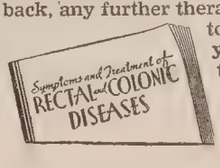

Says William M. Cadmus, 2355 Austin Highway, San Antonio 9, Tex.: "In my time I have found railroad rowdies about equally divided between boomers and home guards. I learned many train-yard switching tricks and short cuts from the boomers, who were capable of drumming the job the first night they reported for duty. It seems that all they needed were timetables and the cars from which to make up east- and westbound locals simultaneously. This adeptness did not make a hit with the home guards, so they called us bums. Boomerism disappeared automatically with the abolition of wholesale firing and the improvement in wages and working conditions.

"I'll never forget the job I had firing B-4R Consolidations on the old Colorado & Southern out of Trinidad, Colo., in 1906. One night I went 'all in' on a Folsom turn and got canned. Prior to that, I had applied for a braking job on the old South Park line, but was looked over and blue-penciled. As I left, I heard a roar of laughter. Hours later, I learned the reason for this guffaw. I was too young! It took men to tool the slim-gage trains up hill and down dale and adjust brake linkage as required, in addition to letting a train down a steep grade with hand brakes.

"One boomer I used to know carried a service letter which read: 'Discharged for carrying boxcar passengers, violation of Rule G, refusing to go out when called, fighting on duty, insubordination, use of abusive language, and generally unsatisfactory service.' "

Recently, a general yardmaster who used to be a crew caller wrote a letter about a man, just retired, who also had started out as a crew caller but who had risen to the eminence of operating vice president and general manager. The letter asked: "Have you forgotten when you called in him and me, and threatened to kick us both off the right-of-way if we didn't stop calling men out of saloons?"

We can't mention names here except to say that the letter was received by Edward H. DeGroot, Colorado Bldg., Washington, D. C., ex-railroader.

"True, some of the boomers didn't stay long," Mr. DeGroot recalls, "but when you were desperate for crews during a rush, and able-bodied, experienced men came in asking for work, they looked mighty good. And not all of them moved on. Some decided they had enough switch-keys in their collections, and remained, eventually going up the ladder by sheer merit." •

SUGGESTION. If the readers who write to us would take extraordinary care to see that their signatures are

World's first multiple-unit car. Inventor Frank J. Sprague himself was at the control that day, back in 1895, on the Chicago South Side elevated line when this picture was taken. Car picked up power from third rail.

written or printed very clearly, the chances of our misspelling those names in the magazine would be extremely slight. Not owning a crystal ball, we cannot always guess correctly when a hastily written signature comes across our desk.

We hate to apologize for printing a man's name wrong through no fault of ours. One such case is that of Donald E. Martyn, 51 Gordon St., Semilong, Northampton, England, whose last name appeared incorrectly in this department as "Metz." The error was pointed out by Mrs. Jose M. Jones, 4470 Rue Drolet, Montreal, Canada. "I send him a copy of *Railroad Magazine* each month," she says. •

"STOP ME if you've heard this one," writes O. E. Babb, Box 41, Pontoosue, Ill. "It concerns Artemus Ward, a famous humorist of long ago. Artemus was riding a slow and rather dilapidated train down South. While the conductor was punching his ticket, the noted passenger asked:

" 'Does this railroad company allow passengers to give advice if they do so in a respectful manner?'

" 'I guess so,' said the skipper.

" 'Well,' grinned Artemus, 'it occurred to me that you should detach the cowcatcher from the front of the engine and hitch it to the rear of the train. We are not liable to overtake a cow, but what's to prevent a cow from strolling into this car and biting a passenger?' " •

50 YEARS ago, an old Vermont engineer used to drain the soda-ash water out of his tank and fill it with fresh water so as to keep alive the fish he had caught on his trips. "This is an actual fact," writes Frank P. Hauser, 504 East Mill Avenue, Fremont, Nebraska, but he gives us no further details of this feat. •

A COMMENT on Barbara Kreimer's reference to Red Ryder's use of railroad subjects in his comic strips (July *Information Booth)* comes from Alexander L. H. Darragh, Midwestern representative, Railway & Locomotive Historical Society, 1314 Bedford Rd., Grosse Pointe Park 30, Mich.: "A recent issue of the *Detroit Times* carried eight different comic strips, three of which featured railroad scenes. Lucius Beebe doesn't have to go all the way back to *The Illustrated Police News* of the 1870s, '80s and '90s to find railroad interest in the press." •

80 YEARS OLD, H. F. Thomas, 194 Water St., Stonington, Conn., tells us that he retired from a towerman's job on the New Haven 16 years ago after 50 years of railroading. Says he: "I am very fond of early railroad history—we oldtimers see the modern stuff every day—but, of course, we would not expect you to cater to us alone. Your best policy, in my judgment, is the one you are now following —a balanced diet of the past and the present." •

DOWN AT THE ST. PAUL STATION

by Thomas Rooney

MEMORY often brings me back
Over the ties of a single track,
Hearing the grain mill's pack-pack-pack,
Down at the St. Paul Station!
No Petrified Forest nor Golden Gate,
Niagara Falls nor mountains great,
Still, there was much to anticipate
Down at the St. Paul Station!

The little old building, gray and neat—
An epic of sun, rain, snow and sleet,
Steel armed benches outside and in;
A pot-bellied stove on a strip of tin;
Map of the System, yellow and frayed;
(Sherburne was marked with a jack-knife blade.)
Glass-framed pictures were all around;
The Cities, Montana, and Puget Sound.

The luring tick of the telegraph
Spoke any message for my behalf,
Diverted my gaze from the crated chicks,
And the section car with malls and picks.
Agent Fogarty, big and gray;
Gold-rimmed glasses; genial way;
Always busy, his tanned arms bare,
Boy, how I loved to linger there—
Down at the St. Paul Station!

Smiles of reunion, tears of good-byes,
Handclasps and kisses, unsuppressed sighs;
The drama of life was played for my eyes
Down at the St. Paul Station!
Madison—Jackson—Fairmont—Wells,
(Is it not odd how memory dwells?)
Words to the music of engine bells
Down at the St. Paul Station!

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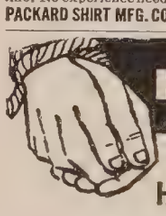

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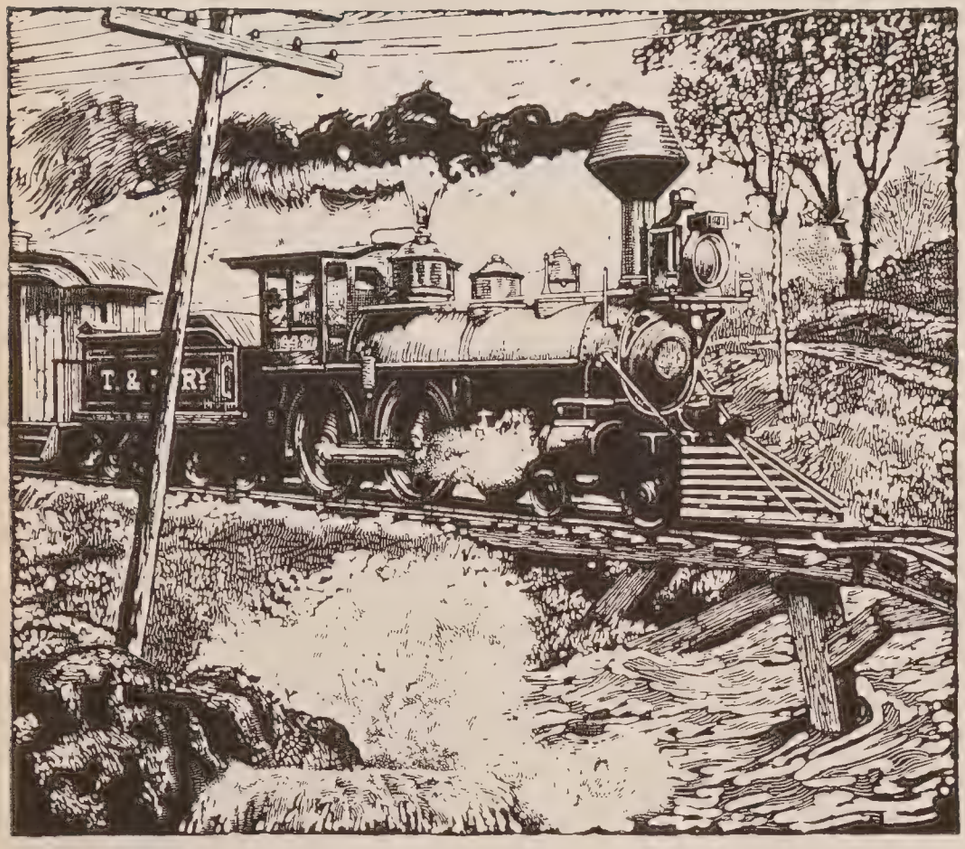

WRECK OF THE 642

For Nearly Seventy Years She Has Slept Undisturbed in the Quicksands of Village Creek

by C. HAMILTON

BOUND for Texarkana . . . and disaster . . . Engine 642 pulled its Texas & Pacific passenger train along the single track running east from Fort Worth, Texas.

It was early morning, March 15, 1885. The town of Handley clicked by on the thirteen-hour run to Texarkana. The train rolled slowly. Most trains did that spring of 1885.

It was wet.

Perhaps Engineer Lyman S. Roach and his brother-in-law and fireman, J. G. Habeck, talked about washouts and spreading tracks in Louisiana.

Maybe they groused about the roadbed that, just ahead, dipped sharply down Arlington Hill to marshy grounds . . . a roadbed that hand shovel and scraper had left just about as nature made it.

To their left, a morass of mud from an overnight rain, ran the dirt highway between Fort Worth and Dallas—it's U. S. Highway 80 now.

The engine rolled at half speed along its last few miles, pulling at about twelve miles an hour the wooden cars of the de luxe passenger train Number 304—tender, mail car, baggage and express car, smoker, ladies' car, and sleeper.

The slow speed gave Fireman Habeck more time to watch, less coal to shovel. Perhaps his doors clanged shut and he leaned on his shovel as Number 642 nosed on the downgrade of Arlington Hill.

Ahead Engineer Roach saw the turbulent waters of flooded Village Creek, running about four feet under the wooden railroad trestle.

A blast on the whistle sent the crows caw-cawing out of trees along the right-of-way.

But the blat of the engine was a cry for help—instructions for the brakeman to race from car top to car top twisting down the hand brakes, the only brakes a train carried back in 1885.

As the engine rolled onto the trestle bridge, Mr. Roach felt the flood-weakened timbers give. He reversed his engine.

"Jump," he shouted to the fireman. Then Mr. Roach went down with his engine.

R. D. Kimmel

On its regular run, car No. 66 of the now-abandoned Ft. Dodge, Des Moines and Southern crossed a high trestle.

Deep into the surge of water the engine plunged. The mail car toppled sideways downstream. The baggage car stood on its nose on the tender.

The couplings a brakie had fastened by hand held . . . and the smoker rested, its front wheels on the bridge piling, against the perpendicular baggage car.

All the passengers were safe.

But what happened to the crew?

Fireman Habeck was dead. His body was found three miles down stream.

Engineer Roach bobbed up in the surging waters. The wrecked cars, damming Village Creek, caused the water to swirl through the engine and to wash the seriously injured man out.

He was rescued. Crippled, he quit railroading, went home to Texarkana, and later became postmaster there.

Mail agents S. A. Stewart and G. W. Adlita, baggage master A. Woodruff, and express messenger J. M. Bogan were less seriously injured. They all recovered.

What became of the train?

The cars were salvaged. The bridge was fixed.

But the engine, Number 642?

It's still there, where it dropped under the flooded waters into the quicksand bed of Village Creek.

Only its smoke stack ever reached the top of the ground again. In 1936 Charles Stockman of Fort Worth, now retired roadmaster for the Texas & Pacific, found a section of the pipe.

It was half buried in silt and mud, directly under the present span of Village Creek bridge. Mr. Stockman dug it out, kept it around a few years as a souvenir. Eventually he sent it to Marshall as part of a carload of scrap.

Mr. Stockman hunted more parts, poked and prodded the creek bank with iron rods and bars, but could not locate any more of the rusting engine.

Later Louis Williams, then bridge foreman for the T&P in the Fort Worth area, told him that the crew putting in the heavy abutments for the present bridge found the old engine in the late 1920's. But they didn't disturb it.

So the rusting iron of Number 642 lies like many another pioneer in an unmarked grave, a bit of history next door to forgotten. ●

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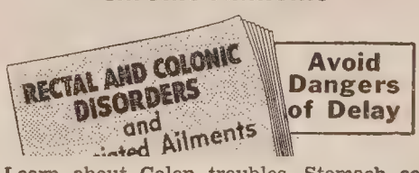

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BUM'S RUSH

TRUE TALE *by* BRUCE BEATTIE

THAT DAY I took over my first shift as engine watchman at Banff, Alberta, Canada, was probably the most exciting and memorable day of my life. That was June 3, 1944, and at that time the Canadian Pacific was doing a flourishing business, enough anyway to warrant a way-freight daily each way between Banff and Calgary, eighty-two miles away.

Looking back on it, the job seems a cinch, but I was fifteen at the time, and it gave me more butterflies in my stomach than I've had before or since. There wasn't an awful lot to do. After the way-freight crew had sacked up for the night, I was supposed to take care of the diminutive Mogul engine, Number 440—clean her fire and otherwise get her ready for the road, and generally keep an eye on her until I awakened her crew the next morning.

For about six weeks, everything went as smooth as butter, and then came a night when I had to put the "bum's rush" on a 'bo who was in no hurry to move on. When I came to work that evening, I was surprised to find the master mechanic waiting for me in the telegraph office. Usually, following his visits, he caught Number 8 for the city. But Number 8 had pulled out hours ago.

"Come here, young fella," he said in a deep voice. "You're just the man I've been waiting to see."

I muttered, "Yes, sir," and followed him into a vacant room off the office.

"We burned a crown sheet on a work train engine last night," he said. "She's still tied up there, some forty miles or so down the line. She was burnt pretty bad," he said gloomily, as if he thought it was all my fault.

I asked him what had happened.

"Well," he said, "far as we can tell, some hobo got into the cab for a snooze while the watchman was in town putting on the feed bag when he should a been watching the 'gine. The 'bo was there when he got back. When he got rid of the hobo, the watchman filled up the boiler, and set his alarm clock three hours hence. That would a been lots of time to catch her with a few inches of water left. Well, couple hours later, a freight roaring through woke him up. And what did he see?"

He seemed to want some sort of answer, so I told him I didn't know.

"An empty water glass." He looked at me again, as if he thought it was my fault. "Well, the watchman routed out the hogger, and they decided to dump the fire. You couldn't see the steam coming out of the bottom try-cock.

"Now," he said, plumping his hands on his knees, "what do you suppose happened to that water?"

I didn't have any idea, but before I had a chance to say so, the M.M. said, "A blow-off cock was found cracked open. Far as we could tell, that hobo got his legs wrapped around the blow-off lever in front of the fireman's seatbox and opened it. The trouble was the watchman always kept his dynamo on, and its drone drowned out the gurgling of the escaping water. You understand?" he said.

I nodded. So he proceeded to give me a stern and long-winded lecture on the importance of keeping tramps out of engine cabs and finally left. I was convinced. I made up my mind no hobo would sleep in the cab while I was around to stop him.

Right after that, I went out to see how the old girl was getting along,

and, talk of coincidences, before I got halfway up the gangway, I saw the silhouette of some guy on the fireman's side. By the time the dynamo started to crowd its higher-pitched sounds, the cab lights dimly revealed a big, red-headed gent sprawled out, sound asleep. He was big—I'd guess around two-hundred pounds—and he was tall—somewhere around six-one in his bare feet.

I was trying to think of some diplomatic way of getting him out of there when he woke up and burned his leg on the injector. That guy really knew how to swear. The railroad had supplied him with a nice warm place to sleep, but the things he said about it were enough to blister the paint on the cab. The gist of it was that he couldn't see why they put injectors down there where a tramp could burn his legs on them.

I figured maybe it'd be a good idea to wash the deck down with the squirt hose. Maybe if I cut the injector down fine, I could cook him out. Before I was through, it was so hot I could hardly stand the heat myself. But just as I was about to give up the whole idea, Red eased out without a word. For a moment there, I felt pretty good.

But as soon as I shut off the injector, Red came back again. I guess he was getting annoyed. This time he grabbed me, shook me, and threatened to drive me down through the deck like a spike if I got smart again. I never got a chance to argue. Then, to my surprise, he jumped to the ground and took off toward the depot, still cursing for all he was worth.

When I got back to the telegraph office, there he was sprawled out on the waiting room floor, as comfortable as you please. I was telling the night op all about it, when a town constable just happened to drop in. We headed for the waiting room. But that hobo must have had a sixth sense. By the time we got there, he was gone. I thought of suggesting we take a look in the engine cab, but it was a quarter of a mile away and I was just a kid and didn't want to risk leading the constable off on another wild goose chase. Anyway I figured Red had been bothered so much that night that he'd be ready to give up trying to sleep on company property.

But less than an hour later when I went back to the engine, there was friend Red, sleeping as soundly as if he'd never been disturbed. The 440 didn't have a vestibule cab, so I could see him from below without climbing aboard. Fortunately Red didn't know I was there. I was a little worried he might try to knock me through the deck. I had an idea he could just about do it, if he had a mind to. But I remembered the M. M.'s warning. Unfortunately he hadn't told me how to get a hobo out of a cab once he'd got in.

I suppose I should have gone back the quarter mile to the depot and phoned the police, but I was afraid that, if I left him, Red would have the blow-off cock open and the boiler drained by the time I got back. So I decided I'd have to get him out of the cab myself.

I never believed in wasting steam and dynamo brushes on the cab lights when I wasn't around them, so I figured, what with the darkness of the cab, I had a card up my sleeve that might take the trick. I'd been scared out of my skin myself the first time a water glass burst on me, and I decided something of that sort would be enough to scare the wits out of Red, particularly when he wasn't likely to know what it was all about. He would awaken in a roaring black envelope of scalding steam and hot water—just what the doctor ordered for rushing a bum. If I didn't give him heart failure, I was sure to cure him of entering engine cabs.

Those old Canadian Pacific 400's had front doors accommodating brakies who in earlier days used them to go out to the pilot in the hectic days of switch-stand meets, and I crawled through it into the pitch dark cab. Luckily, those 400's also had narrow boilers, so I was well out of the way when I was up straddling the quadrant.

Tucked well around the side of the boiler, I reached for the top

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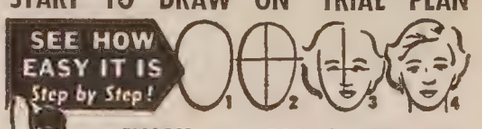

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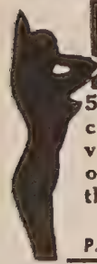

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try-cock. Would one be enough? No, I decided to make it a really good one. Leaning way over, I opened the cocks as wide as possible and let forth a deafening blast of escaping steam.

That night in July, 1944, Red must have broken the world's record for unloading from an engine cab. He must have thought the old kettle had cashed in. I saw him latch onto the ladder of a gondola in the consist of a drag moving slowly through the yard.

I keep thinking someday he'll come back to thank me for waking him up in time to catch his train. Considering the speed with which he caught it, he must have had reservations. ●

SUNNY SIDE of the TRACK

Tall Story

HAWKSHAW was an artist of the alibi. For years he'd been talking himself out of every kind of an accident, from cornering cars to running through switches. So he wasn't caught short that day he dropped eighteen loads and threw the switch under the eighteenth car, a 65-foot gondola, loaded with sheet steel. It did a pretty thorough job of tearing up switch points, guard rails, and frogs.

"How came you threw the switch under that car, and caused several hundred dollars worth of damage?" the trainmaster wanted to know.

Hawkshaw beamed. "I had eighteen cars to drop," he said. "All of them but the last were forty-foot cars. I forgot all about that sixty-five-footer and let eighteen forty-footers go past me. If you want to measure, you'll find exactly forty feet of that sixty-five footer went past me before I threw the switch."

He Needed No Name

ON A CROOKED PIKE in the Ozark Hills, a young runner who preferred his nourishment in liquid form was eternally yanking out drawbars.

One day, while he was sitting with the homeguard boys on the baggage trucks futilely wishing some of them would stake him to a few dimes so he could sit in the penny ante game, a homeguard inquired, "What engineer did you have down, Curly?"

"Aw, I dunno his name," the rambler responded. "It was that pretty-faced little drunken hog-mauler with a gold front tooth that always goes around leadin' one behind the caboose with a lung out of it. You know who I mean."

Plenty of Time

GOOSE-NECKED GEORGE was a gangling, hill-born freight conductor. One night during fall rush, he caught a mile of ancient stock cars east with two student brakemen and a student engineer.

In the small hours, he started over from St. Johns to Hamburg against Number 5 with Number 8 on his tail. The hogger let them roll into a sag with slack bunched and rambling along at a mile a minute. When he opened her wide and started up out of the sag, something grabbed her by the tail and the train line gage fell back to zero.

The student brakeman loped off and raced back. Four cars behind the tank, he found a hose spilling air and the track full of bolts, nuts, drawbar, and shivered timbers.

While he was frantically trying to get the stuff out of the track so they wouldn't lay out a passenger train, the long, lean skipper came over. He stared pityingly down at the struggling student, squirted a flood of disgusted tobacco juice into the track and said as calmly as if there wasn't a passenger train within a thousand miles, "Son, yuh might as well go back to the engine. Git yuh a red un an go over to Hamburg an' stop Five. Milligan's gone back to St. John to git Eight. We got six more out between here an' the crummy. Hoghead an' me'll chain 'em up an' bring 'em in one at a time. Don't be in a no hurry, because we had plenty uh time when we started." ●

Rail Photo Service

Union Pacific No. 5518 traveled LA&SL line before dieselization.

STEAM POWER

Reports coming in from all over tell us about where steam is still running in the United States and Canada.

Martin Gipson, 1138 Chestnut St., Chico, Calif.; Fred J. Tonne, 5281 Teutonia Ave., Milwaukee 9, Wis.; Howard Davis, 220 Richards St., Pittsburgh 14, Pa.; Ralph A. Slater, 42 Waller Ave., White Plains, N. Y.; Nathan Wells, 95 Mineola Blvd., Mineola, N. Y.; John Lock, 428 Prospect Ave., Hackensack, N. J.; Fred Mullen, Box 28, Mineral Springs, Pa.; Sgt. J. Bender, Ft. Meade, Md.; Dr. George T. F. Rahilly, Sweet Bldg., Fort Lauderdale, Fla.; C. W. Witbeck, Box 697, Brookhaven, Miss.; Thomas Norrell, Box 1815, Charlotte, N. C.; Stanley D. Crews, Box 63, Waynesboro, Tenn.; John Bogvilo, 326 Walnut St., Aurora, Ill.; H. F. Van Horn, Galahad Road, Hudson, Wis.; R. G. Nugent, 243 Main St., Dansville, N. Y.; and Dwight A. Smith, RFD 1, Suncook, N. H., helped us compile this month's list.

Dieselization is progressing so rapidly that nobody can guarantee accuracy. The Pittsburgh & Shawmut listed in September has since been dieselized. Chicago & Illinois Midland no longer has any 2-8-0's, and the Durham & Southern engine at Apex runs to Durham rather than Raleigh as we had stated. Who else knows where that vanishing breath of steam is still blowing?

Alger-Sullivan Lumber Co.—Century, Fla.—2-6-0, 2-8-0, 2-6-2, 4-6-0 stored

Aliquippa & Southern—Aliquippa, Pa.—0-6-0, 0-8-0

Angelina & Neches—Keltys, Tex.—2-6-0, 2-6-2, Brill Coach

Arcata & Mad River—Calif.—2 truck Shay, 2-6-2, 2-6-6-2t

Argent Lumber Co.—Hardeeville, S. C.—7 rod engines; 3-foot gage

Arkansas—Star City, Ark.—2-6-0

Arkansas & Louisiana Missouri—Monroe, La.—0-6-0, 4-6-0

Baton Rouge Terminal—Baton Rouge, La.—4-4-0, 0-8-0

Baltimore & Ohio—Painesville, Lorain, O.; Punxsutawney, Pa.—pass. trains 251-252, yards 100% steam operated; mine runs on Indiana branch operated by Mallets; Clearfield Local; Gleenwood Roundhouse at Pittsburgh, Pa.; Cincinnati, O.—2-8-2's, 4-6-2's; Galeton, Foxburg, Kane, Pa.—Buffalo & Susquehanna engines; Butler Jct., Pa.; most points in Ohio

Bentley Lumber Co.—Zimmerman, La.—2-6-0

Billeaud Sugar Co.—Broussard, La.—4-4-0

Bonhomie & Hattiesburg Southern—Hattiesburg, Miss.—2-6-2, 2-8-2, 4-4-0

Boston & Maine—Boston, Mass.

Brimstone Railroad—New River, Tenn.—Shays

Brookhaven & Northwestern—Brookhaven, Miss.—0-4-4T, 36-inch gage

Brook's Scanlon Lumber Mill—Foley, Perry, Fla.

Brown Paper Mill Co.—West Monroe, La.—0-6-0, 2-6-0

Buchans Railway—Buchans, Newfoundland—2-6-2, 42-inch gage

Burlington—Aurora, Ill.—0-6-0's; 4-8-4-'s on main line to Chicago

Cadiz Railroad—Cadiz, Ky.—0-6-0, 4-6-0

Calcasieu Paper Co.—Elizabeth, La.—2-6-2's (on strike for last year)

Campbells Creek—Reed, W. Va.—four 2-8-2's

Canadian National—Montreal, Que.; Sherbrooke, Que.—100% steam, 4-8-2, 0-6-0, 2-8-2

Canadian Pacific—Montreal, Que.

Canton & Carthage—Canton, Miss.—4-6-0, 2-8-2

Central Vermont—North from New London, Conn.; St. Albans, Vt.—2-8-0, 0-8-0, 2-10-0, 4-6-2, 4-8-2, 4-6-0, 0-6-0, most in storage

Chattahoochee Valley—West Point, Ga.—2-8-0

Chicago Mill & Lumber Co.—Tallulah, La.—Heislers.

Chicago, St. Paul, Minneapolis & Omaha—Hudson, Wis.—4-6-0, 2-8-2, 4-6-2

Cinclare Central Factory—Cinclare, La.—4-6-0

Cliffside Railroad—Cliffside, N. C.—3 rod engines

Clover Valley Lumber Co.—Loyalton, Calif.—2-6-2, 2-6-6-2t

Consolidated Paper & Power Co.—Ontonagon, Mich.—old logging road 2-6-0

Crosby Lumber & Manufacturing Co.—Crosby, Miss.—Shays

Crossett Lumber Co.—Crossett, Ark.—2-8-0

Crowell & Spencer Lumber Co.—Longleaf, La.—2-6-0, 2-6-2, 4-6-0, Shays

Davis Brothers Lumber Co.—Ansley, La.—2-6-0, 2-6-2, 4-6-0

Duluth, Winnipeg & Pacific—West Duluth, Virginia, Minn.; International Falls, Ont.—2-8-0's, CN 4-6-2's

Dunham Stephens Inc.—Pollock, La.—0-6-0T, 4-6-0

East Branch & Lincoln Railroad—Lincoln, N. H.—2-4-2, 0-4-0 saddletank switchers

East Tennessee & Western North Carolina—Johnson City, Tenn.—3 steamers

E. J. Lavine & Co.—Roussens, Va., near Lynchburg—3 side tank locos.

Emory River Railroad—Engine usually found at Goby, Tenn., when not working—2-8-2

Erie—Secaucus, N. J.—dead engines

Feather River Railway—Feather Falls, Calif.—several shays

Feliciana Eastern—Bluff Creek, La.—2-6-0, 4-6-2

Fisher Hardwood Co.—Fisher, La.—shay

Florida East Coast—St. Augustine, Fla.—dead engines

Frost Lumber Industries—Nacogdoches, Tex.—2-8-0, 2-8-2

Fruit Growers Supply—Hilt, Calif.—Shay and Climax; Westwood, Calif.—2-8-0 (ex LV&T), 2-8-2

Gainesville, Midland—Gainesville, Ga.—2-8-0, 2-10-0

General Crushed Stone—Leroy, N. Y.—ex-Genesee & Wyoming

Gifford Hills & Co.—Gifford, La.—2-6-0, 0-6-0

Godchaux Sugars Inc.—Reserve, La.—0-4-4T, 0-6-4T, 2-6-0, 36-inch gage

Graham County Railway—Robbinsville, N. C.—Shay

Grand Trunk Railway—Shelburne to North Stratford, N. H.—100% steam—4-6-2, 4-8-2, 2-8-0, 2-8-2; Bloomfield to Norton, Vt.—100% steam

Gravel Lines around Woodworth, La.—0-6-0, 0-6-0T, 2-6-2, 4-6-0

Green Brothers Gravel Co.—Franklinton, La.; Georgetown, Miss.—2-8-2

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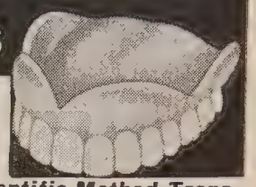

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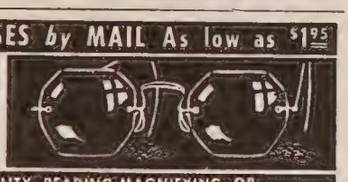

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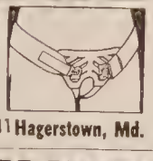

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DEPT. C-11-M PORTLAND 13, OREGON

Groveton Paper Co.—Groveton, N. H.—saddletank switchers

Hampton & Branchville Railroad—Miley, S. C.—four steamers

Holly Hill Lumber Co.—Holly Hill, S. C.—2-4-2, one other

Holly Ridge Lumber Co.—Holly Ridge, La.—Heisler

Homochitto Lumber Co.—Bude, Miss.—Shays

Illinois Central—Baton Rouge, La.—0-6-0, 2-6-0, 2-8-0, 2-8-2; McComb, Miss.—2-6-0, 0-8-2, 2-8-0, 2-8-2, 2-8-4, 4-8-2, 2-6-2; Mays Yard, New Orleans, La.—0-6-0, 0-8-0, 0-8-2, 2-8-2, 4-8-2, 2-8-4; Jackson, Miss.—0-6-0, 2-8-2, 2-8-4, 4-8-2; Vicksburg, Miss.—0-6-0, 0-8-0, 2-8-2

Jersey Central—Elizabethport, N. J.—dead engines

Kaiser Rock Co.—Oroville, Calif.—0-4-0t's

Kentucky & Tennessee—Stearms, Ky.—three 2-8-2's

Kirby Lumber Co.—Silsbee, Tex.—2-6-0, 2-6-2, 2-8-0, Shay

Koppers Co.—Nashua, N. H.—0-4-0 saddletank, not in use

Kurth Lumber Co.—Jasper, Tex.—2-8-0

Lee Cypress Lumber Co.—Copeland, Fla.—cabbage stack steamer

Live Oak, Perry & Gulf—Foley, Fla.

L. N. Coal Co.—Lansford & Tamaqua, Pa.—8 standard-gage saddle tank 0-6-0's, 5 narrow-gage saddletank 0-6-0's, 22 narrow-gage saddletank 0-4-0's

Long Island Rail Road—Mineola, N. Y.—8-wheelers on passengers, consolidations on freights

Louisiana Cypress Lumber Co.—Ponchatoula, La.—2-6-0, 2-6-2, 2-8-0

Louisiana Eastern—Shiloh, La.—0-6-0, 0-8-0, 2-8-2, 4-4-0, 4-6-2

Louisiana & Pine Bluff—Huttig, Ark.—2-8-0

L. S. Clarke Co.—Massaponax, Va.—0-4-0 narrow-gage saddletank

McCloud River Railroad—McCloud, Calif.—2-6-2's, 2-8-2's

Mann's Creek Railroad—Clifftop, W. Va.—three narrow-gage Shays

Marinette, Tomahawk & Western—Tomahawk, Wis.—2-6-2 formerly of Yawkey-Bissel Lumber Co., White Lake, Wis., and two 4-6-0's, formerly CMStP&P Branch liners from Iowa, with roundhouse at Tomahawk

Mead Corporation—Lynchburg, Va.—0-6-0; Sylva, N. C.—0-6-0, 0-4-0

Meadow River Lumber Co.—Rainelle, W. Va.—Shays and Heislers

Meridian & Bigbie River—Meridian, Miss.—4-6-2, 2-8-0 on exhibition

Merrianna & Blountstown—Blountstown, Fla.

Millstead Railroad—Millstead, Ga.—one saddletank

Milwaukee Road—Shullsburg, Wis., Gratiot & Darlington Branch—one train daily, 2-8-0; Ontonagon, Mich.—2-8-2's on freight runs at end of line; Auton, South St. Paul, Minn.—steamers

Minneapolis Eastern—Minneapolis, Minn.—0-6-0 near Milwaukee Depot

Minnesota Transfer Railway—St. Paul, Minn.—0-6-0's

Missouri Pacific—Ferriday, La.—2-8-0; Alexandria, La.—2-8-2, 4-8-2

Monroe Sand & Gravel Co.—West Monroe, La.—2-8-0

Moorehead & Northfork—engine house three miles outside Moorehead, Ky.—3 steamers

Mt. Washington Cog Railway—Bretton Woods, N. H.

Newfoundland Railway (CNR)—thirty 2-8-2's, ten 4-6-2's, 42-inch gage

Northern Pacific—East St. Paul, Minn. (Mississippi St. Engine house)—2-8-2, 0-6-0, 2-6-2; Still Water, Minn.—0-6-0

Northern Redwood Lumber Co.—Korbel, Calif.—3 truck Shay

Norwood & St. Lawrence—Norwood, N. Y.—Moguls

Pacific Lumber Co.—Scotia and Yager, Calif.—2-6-2, 2-8-2t

Paper Mill—Wisconsin Rapids, Wis.—2-8-0 (ex Green Bay & Western No. 350)

Paris & Mt. Pleasant—Mt. Pleasant, Tex.—4-6-0

Parish Line Railway—Kinder, La.—4-6-0

Pembroke Limestone Co.—Pembroke, Va.—0-6-0

Pennsylvania—Long Branch from South Amboy to Bay Head Jct., N. J.; most points in southern Ohio; Buffalo, N. Y.; Renova, Pa.—4-8-2, 2-8-2, 2-10-0; Elmira, N. Y.—0-6-0, 2-8-2, 2-10-0

Pickens—Pickens, S. C.—2-6-0

Pickering Lumber Co.—Standard, Calif.—Shays and Heislers

Preston Railroad—Crelin, Md.—two 2-8-0's

Quebec Central—Sherbrooke, Que.—100% steam, 4-6-2, 4-6-0; Newport, Vt.

Raritan River Railroad—South Amboy, N. J.—seven 0-6-0's

Richmond Pulp & Paper Co.—Bromptonville, Que.—saddletank switcher

Rock of Ages Corp.—Barre, Vt.—four steam switchers, ex-B&C, MeC, StJ&LC

St. Johns Plantation—Levert, La.—0-4-4T, 2-6-0, 36-inch gage

Santee River Hardwood Co.—St. Stephen, S. C.—three Heisler engines

Sierra Railroad — Jamestown, Calif. — 4-6-0's, 2-8-0's, 2-6-6-2t

Soo Line—Shawano, Wis.—2-8-2's, 2-8-0's daily; St. Paul, Minn. (Union Depot)—4-6-2; Northeast Minneapolis, Minn.—steamers

Southern New York Railway—Oneonta, New York—Heislers

Southern Pacific—Reno; Fernley, Nev.; and Alturas, Calif. line—cab-forwards and 2-8-8-4's; Dunsmuir, Calif.—2-10-2's and cab-forwards; Roseville to Gerber and Dunsmuir—4-8-2's and cab-forwards. Roseville south through San Joaquin Valley—2-10-2's, 4-8-2's, 4-8-4's (a few of these are ex-Cotton Belt engines), 2-6-0's and 4-6-0's. San Francisco and Bayshore to the South—Pacifics, Mountains, and ex-Cotton Belt 4-8-4's on commuters, general service 4-8-4's on top streamliners, also 2-10-2's, cab-forwards, and a few Mikados. (Note: 0-8-0's switch at Roseville; 0-6-0's in Bay Area and San Joaquin Valley. 2-8-0's used on way freights and locals in almost all parts of Calif.); Lafayette, La.—0-6-0, 2-6-0, 2-8-0, 2-8-2; Algiers, New Orleans: 2-6-0, 2-8-0, 2-8-2; Avondale, New Orleans: 2-8-2; Beaumont, Miss.: 2-6-0, 2-8-0, 2-8-2, 2-10-2; Houston, Tex.: 0-6-0, 0-8-0, 2-6-0, 2-8-0, 2-8-2, 2-10-2; New Iberia, La.: 2-6-0

South Georgia—Foley, Fla.

Sugar Refinery—Clewiston, Fla.

Sumter & Choctow—Bellamy, Ala.—2-6-2, 2-8-2

Swift-Hunter Lumber Co.—Atmore, Ala.—2-6-0, 2-8-0

Tangipahoa & Eastern—Fluker, La.—0-6-0

Temple Lumber Co.—Pineland, Tex.—2-6-2, 2-8-2

Tennessee Railroad—Oneida, Tenn.—six steamers

Termont & Gulf—Winnfield, La.—2-8-0, 4-6-0, both stored

Texas & South-Eastern—Diboll, Tex.—2-6-2, 4-6-0

T. R. Miller Mill Co.—Brewton, Ala.—2-6-2

Turner Timber Co.—LaMoven, La.—Heislers

Union Transportation Co.—New Egypt, N. J.—Mondays 8:30-9:00 a.m., 1:00-2:00 p.m.

Vermilion Sugar Co.—Erath, La.—4-4-0, 4-6-0

Washington & Western—Jenkins, La.—(near Franklinton) Gasoline Heisler

Watson Gravel Co.—Fluker, La.—0-6-0

Western Terminals, Ltd.—Corner Brook, Newfoundland—0-4-0, 42-inch gage

Westfield Plantation—Westfield, La.—0-4-4T, 0-6-2T, 30-inch gage

West Side Lumber Co.—Tuolumn, Calif.—three-foot gage Shays and a Heisler

W. T. Carter & Brothers—Camden, Tex.—2-6-0, 2-6-2, 2-8-0, 4-6-0, Shay

W. T. Smith Lumber Co.—Chapman, Ala.—4-4-0 on exhibition, Heisler

Yreka Western—Yreka, Calif.—0-6-0, 2-8-2

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(R) RALPH BLACK, 110 Sylvan Ave., Gloucester, N. J., will sell 188 diff. copies *Railroad Magazines*, fair cond.; 23 diff. copies *Railroad Stories* (few have covers), fair cond.; buyer must take all and pay frt.; price $30.

(R) J. C. BOYD, 627 Decker Ave., Elmira, N. Y., will buy pix of locos. and trains of Northern Central; Elmira, Cortland & Northern, and Marion (N. Y.) Ry. Has *Railroad Magazines* for sale or trade; also few *Trains*, PRR calendars.

(*) JIM BURCHARD, Box 293 East Haven, Conn., will sell p.c. size prints of PE and LATL n.g. elec., 20c ea.; send for list; also PE and LATL trsfs. and tts.

(*) RAY BYERS, 167 Feronia Way, Rutherford, N. J., sells Denver trolley pix, 7 size 116, 75c; trolley pix, various cities, 8 size 116, $1; all postpaid.

TED CHERRY, 1287 Walden Ave., Buffalo 11, N. Y., will sell sizes 120, 116, 616, and 5 x 7 loco. pix, CN, CNJ, CNW, NYC, Soo, others; send stamped env. for list and sample.

CARTER CRAM, Rte. 1, Box 3820, Redding, Calif., wants size 116-616 diesel pix of D&RGW, NP, UP, SP&S.

(*) STAN CREWS, Box 63, Waynesboro, Tenn., will sell 575 copies of *Railroad Magazine*, *Headlights*, *Modern Tramway*, *Interurbans*, *Trolley Sparks*, *Rys. in Australia*, *Ry. Progress*, etc., '36 to date; write for details.

AL FARROW, 820 B St., Auburn, Wash., will trade Post's Sugar Crisp metal RR. emblems; write first.

M. P. GANEY, 1031 N. Penn St., Indianapolis 2, Ind., has thousands of annual RR. passes, U. S., 1856 to 1900, $1 ea. and up; no Western.

F. J. GOLDSMITH, 139-42 58th Ave., Flushing 55, N. Y., will sell to highest bids annual passes: PRR, '91, '96, '97; WJ&S '04, '13; NYC&HR '97; NOY&W '05; PS&N '05; PW&B '01; LV '97; B&O '04.

L. W. GOODWIN, Box 3, Northfield, Conn., has old conductor's ticket case with many old hat checks, from Sullivan RR in New Hamp.; make offer.

DON HAYWARD, SR., 38 Monastery Ave., W. Springfield, Mass., sells pix steam power B&A, B&M, CNR, CPR, CV, GTW, D&H, MeC, New Haven, NYC, Rut.; also pix of pass. cars, cabooses from Eastern rds.; list, 10c.

(*) W. HENDERSON, 2 Molloy St., Silkstone, Ipswich, Queensland, Australia, has tickets, tts., and loco photos of Queensland Rys. (n.g.); also Australian trolley tickets.

JOHN ILLMAN, 7400 Errol Dr., El Cerrito 8, Calif., trades emp. tts.; sells *Off. Guides* '48 to '53, $1 postpaid; list for 3c or your list.

(*) CHAS. JONES, 2920 W. Master St., Philadelphia 21, Pa., has large list of elec. ry. items for sale by mail auction; rare tts., maps, negs., trsfs.

MERT JONES, 422 Dacy St., Woodstock, Ill., will buy switch keys from any US road.

WILSON JONES, 293 Elsmere Pl., Palisade, N. J., wants steam action shots negs. and prints; has few negs. to swap; many prints, size 616, 620, or p.c.

(*) DON KEHL, 331 Edmonds Ave., Drexel Hill, Pa., will trade PTC material for or buy old or current "Take one" streetcar publications.

JULES KRZENSKI, 338 45th St., Newport News, Va., will sell pix LIRR, C&O, Ports. Belt Line, 8 x 10, ea. $1; 5 x 7, ea. 50c; send stamp for list.

(*) RAY KUCERA, 3008 S. Kolin Ave., Chicago 23, Ill., wants any trolley or interu. pix, esp. Chicago.

JOHN LEE, Box 115, Comber, Ont., Canada, will sell most of large collection of CPR, CNR, NYC, other negs. and pix, mostly size 616, few 620, 122; mostly steam; no lists, will send on approval.

JOHN LOCKE, 428 Prospect Ave., Hackensack, N. J., will buy p.c. negs. of Erie, CNJ, LV, LNE, Rdg., D&H steam locos, also camelbacks, any rd.

ROBT. LONG, 634 Bellmore Ave., East Meadow, N. Y., will sell 4 reproductions of famous locos: *General*, *Com. Vanderbilt*, IC 382, NYC 999; $1.75 set.

PAUL MATTAES, 430 E. Royal Forest, Columbus 14, O., will sell '42 thru '50 *Model Railroader*, good cond., $3.50 per yr.

C. R. McGREGOR, 609 Cherry St., Louisville, Neb., will sell many issues *Railroad Magazine*, '34 to '50; list for stamped env.

(*) JOS. McMAHON, 15 Adrian Ave., New York 63, N. Y. sells pre-war photos, mostly NY City RR and trolley; list for 3c stamp.

L. W. MONTGOMERY, Box 210, Washington, Mo., will sell Sept. '20 *Off. Guide*, good cond. for best offer.

HOWARD MOULTON, 325 Wibird St., Portsmouth, N. H., will sell emp. tts. A&StAB '44; other short lines; 50c ea.; will buy Concord switch key.

C. E. MUNSON, 1104 Cortez Dr., Glendale 7, Calif., will buy or borrow *Off. Guide* or DSS&A, C&NW or Milw. tts., all prior to '20.

R. G. NUGENT, 243 Main St., Danville, N. Y., wants p.c. Graflex, good cond.; *Car Bldrs. Cyclo.*, '05-'20; buy or trade Ampro 731R tape recorder, good cond.

(*) J. M. PEARSALL, 10 Maiden La., Lynbrook, N. Y., will buy *Railroad Magazine* May, June, Aug., Sept., Nov., Dec. '40.

ROY PETERSON, 407 W. Perry St., Belvidere, Ill., wants print, any size or cond. of C&NW No. 1305.

LEROY POAGE, Rt. 11, Box 418A, Oklahoma City, Okla., will trade emp. tts., AT&SF, Okla. Div. No. 85, 3/2/52, and Frisco, SW Div. No. 38-B, good cond.

FELIX POLEK, 110 Hazel St., Braddock, Pa., wants NYC calendars complete, 1922 to '31.

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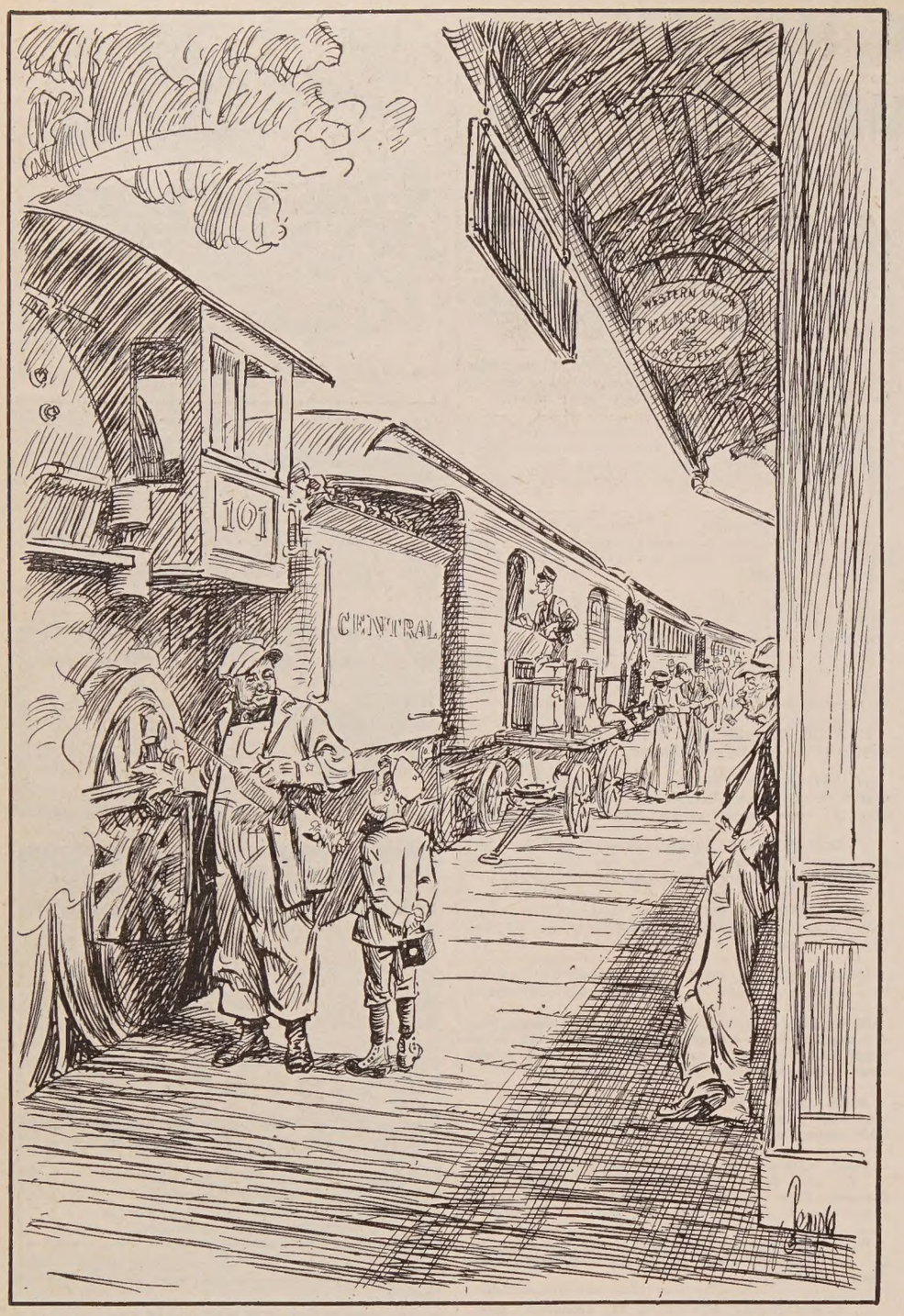

BACK IN THE DAYS **by Harry C. Temple**

"Railfan eh? Well, Sonny you gotta have a pass to ride the engine."

(R*) L. J. REDMAN, 225 Harrison Ave., Avalon, Pittsburgh 2, Pa., will sell or trade *Railroad Magazine*, good cond., unclipped; model mags., etc., for CERA book, Ohio Elec. Lines; Loco. *Cyclopedia* '50, '51.

(*) SY REICH, 92 St. Marks Pl., New York 9, N. Y., will sell 8 x 10 pix NYCTA subways and els, and CRRNJ, B&O, diesels, 60c ea; write for list..

H. REID, 8549 Wayland St., Norfolk, Va., will sell size 616 view on p.c. stock, new N&W turbine on test run, 10c; no other list.

(*) M. E. RICH, Box 89, Sta. J., Toronto, Canada, sells pix TTC subway streetcars, trolley coaches, size 616; transit map; 35 mm. TTC color slides; also will enlarge negs. to 5 x 7 prints 50c, 8 x 10 75c.

EVELYN RIVERS, 518 Ashby St., S.W., Atlanta, Ga., will sell 87 *Baldwin Records of Recent Constr.*, incl. Nos. 1-54; 63 issues *Baldwin Locos*; Vols. 1-11, *Trains* unbound; make offer.

(*) DOUG. ROBBINS, 1118 Mohawk St., Los Angeles 26, Calif., wants pix of CNS&M, CSS&SB, CA&E interurban cars; will trade current PE car photos.

ROBT. SCHOLES, 23 Storrs Ave., Braintree 84, Mass., wants old pix, info., tts., on Old Colony, West Quincy branch 1870-1900; also pix of Granite Ry.

J. SHAFER, 700 Cottage St., Waterloo, Ia., wants steam traction engs. and thresher catalogs, old watch fobs and medals, circus letterheads, Baldwin Loco. mags, farm machinery catalogs.

(*) JOE SHANNON, 4912 30th Ave., S., Minneapolis 17, Minn., will sell 12 diff. 3½ x 3¼ pix of last Fan St. car trip over TCRT. $1.

RALPH SLATER, 74 Bryant Ave., White Plains, N. Y., wants to contact fans taking 8mm. color tr. movies.

C. L. SMITH, 339 Waverly Ave., Newark 3, N. J., will sell pix, any size, PRR, CNJ, DL&W, B&O, Rdg., NYC, NYNH&H, B&M; list and sample 10c.

HOWARD SMITH, 24 Shickluna St., St. Catharines, Ont., Can., will buy pix and info. on CNR rd. switchers 7575 and 7576.

(*) J. F. SMITH, 853 N. Lawler, Chicago 51, Ill., sells *Railroad Magazines*, *Trains*, passes, negs., pix.

T. J. SOMMER, 30 2nd St., Harrison, N. Y., will trade one copy ea. *The Boomer* and *Steel Trails*, like new, for *High Green and Bark Peelers and Steelways of New England*, new cond.

STAN. STYLES, 19 W. 18th Ave., Vancouver 10, B. C., Canada, sells size 616 negs. 35c ea. of CPR, CNR, BCER, NP, Skagit River, others; also pix and scenics; swap negs with Eastern Canadian fans.

THOMAS TABER III, 43 Hillcrest Rd., Madison, N. J., will buy NP old annual reports, tts., etc.; will sell old Colo. books, maps.

JOHN THRAEN, Elizabeth, Ill., wants info. and pix of 10-unit diesel on CGW at Elizabeth on night of Aug. 8, westbound with about 200 cars.

(R) CHAS. VANEK, Box 165, Frankenmuth, Mich., will sell unclipped issues *Railroad Magazine* for $15, or $10, plus both editions *Interurban Trails* by Jos. Galloway: all '35, '36, '37, '38, exc. June, Aug.; all '39, '40; all '41, exc. Dec.; all '42 exc. Nov., Dec.; all '43, exc. Jan., Feb., Mar., May, June, July; '44, '45, '46, all '47, exc. Feb.; '48; all '49 exc. Apr., June, Aug.; all '50.

(R) H. K. VOLLRATH, 2624 Meriwether Rd., Shreveport, La., will sell loco pix, size 116, p.c., larger, most large rds., many short lines; write for list; *Railroad Magazine* '46-50. Wants steam eng. records 33 or 78 RPM.

(*) A. von BLON, Jr., 3621 Windsor Ave., Waco, Tex., will sell or trade tokens from Church & Spruce St. RR; Hot Springs St. RR; Hot Springs St. RR, KC Pub. Serv. Co., Minn. St.. others, for emp. or pub. tts., annual passes, etc.

DAVE von GUNTEN, 4718 Arlington Ave., Fort Wayne 6, Ind., wants pix of steam locos from all roads.

PHILIP WEIBLER, 24 Country Club Dr., Quincy, Ill., will sell pix CB&Q, C&NW, Wabash, N&W, etc.; send 25c for sample and list.

(*) JOHN WEIGHTMAN, Box 696, Sacramento, Calif., will sell pix, size 124, Sac.&N. 3-car tr. at Union Depot, taken over 20 yrs. ago; 20c ea.

(*) ROGER WHITE, Box 23, Martindale, Tex., wants Kansas City Pub. Serv. negs, pex route maps, trsfs, tokens, weekly passes, pocket schedules.

(*) DICK WILLIS, 232 S. Mariposa Ave., Los Angeles 4, Calif., will buy PE tts of '20's; pix of Omaha, Council Bluffs, and Jackson, Mich., streetcars. Write first.

CHAS. YRIGOYEN, Jr., 329 N. 5th St., Reading, Pa., has Rdg. Co. empt. tts. for sale or trade; wants empt. tts., tickets, tts., etc., Rdg. Co. and Wilm & Northern.

(*) WALTER ZULLIG, 475 Oak Ave., Maywood, N. J., will sell p.c. size photos NYS&W, NYC, Erie, Long Island, CNJ, etc.; also SIRT, NYCTA, PTC, P&W, enc. 3c stamp.

MODEL TRADING POST

ED AUSTIN, 248 Hutchinson Blvd., Mt. Vernon, N. Y., will trade part of large Lionel O gage layout, many hard-to-get items; also mags; list, 3c.

LOU BENTLEY, 451 Bloor St. E., Toronto, Canada, wants Beech Island trolley car, mail car, open-bench trailer, either kits or built up; also Motomarine controller, any gage.

HAROLD, c/o Box 118, Sandy, Ore., will sell HO Mantua New Mikado kit $20; valve gear set, ½ price; also Mantua New Mogul kit $21.50; other items cheap.

DAN KERELKO, Rte. 2, Floodwood, Minn., will sell loco headlight and mount complete, $15 plus shipping charges, or trade; sell Lionel loco No. 675, no tender or piston rods, good cond., $10.

HENRY LOIDOLT, 3811 S. Gunderson Ave., Berwyn, Ill., will trade HO kits; Bowser Articulated, Bowser Mountain locos, Mantua Mogul, etc.

(R) T. J. PELLETIER, Palouse, Wash., must sell whole outfit, O gage eqpmt., trk, switches, autos, trucks, boats, planes; *Railroad Magazines*, RR pix, photo albums.

L. J. REDMAN, 225 Harrison Ave., Avalon, Pittsburgh 2, Pa., wants Lionel O72 switches, O gage baggage cars, '15-'23 elec. type locos, etc.; list for stamp. Make offer for Weeden live steam train.

BARRY SHUMAKER, 16800 Muirland, Detroit, Mich., will sell Lionel 2055 SW eng. with tender and 224 eng, very good cond.; answers all mail.

PAUL WRIGHT, 712 Church Ave., Columbus, Ga., wants Exacta copper moulded Pull car sides No. 511, 104, 508, 507, new or used, O gage.

DICK ZALEWSKI, Rte. 5, Manitowoc, Wis., wants HO plans of '36 to '50 interurban frt. locos.

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